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These manuscripts described as either an Inaugural Dissertation or an Inaugural Essay were presented to the University of Maryland for the Degree of Doctor of Medicine and/or Doctor of Physic during the years 1813-1887. The individual dissertations were bound together during the 1940's. The original tables of contents for the bound volumes contained multiple errors in authors' names, titles, and/or years. To address these errors, an additional "Corrected Table of Contents" has been inserted at the beginning of each volume.

The project team who investigated and corrected the tables of contents were Richard J. Behles, Historical Librarian/Preservation Officer; María Milagros Pinkas, Metadata Management Librarian; Angela Cochrane and Carol Harling-Henry, Resources Division; Sarah Hovde, Abra Schnur and Megan Wolff, Services Division.

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UNIVERSITY OF MARYLAND

THESES

1883 (c)

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[1] Reprint from Maryland Medical Journal, 1883.

HSHSL 2012 for the UM Digital Archive. Sources consulted for corrections: Original Dissertation; University of Maryland Medical Faculty, Matriculation List, 1851-1892; Cordell, Eugene F. "University of Maryland, 1807-1907" (New York : The Lewis Publishing Company, 1907), Volume 2.

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Hugh R. Black

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Typhoid Fever.

Definition. Typhoid is an acute febrile affection, self limited feebly if at all contagious, and characterized by a peculiar eruption on the abdomen, by diarrhoea by stupor and low muttering delirium ulceration of Pyer's patches, softing of the mesenteric glands and by swolen spleen. This disease has received various names. Some call it abdominal typhus, others typhoid or enteric fever.

Causes. ~~Typh~~ The origen of typhoid depends upon a peculiar poison

is also advantageous Cold is dangerous as it might produce congestion of the internal organs. Proper ventillation and hygienic surroundings should be attended to in every respect Hydrat. Chloral must be used with caution. When there are sleeplessness & restlessness morphia & Belladonna act very well. Dovers powder or Nitrous powder is also very good. Perhaps there is no remedy that has been followed by as good results in the treatment of this disease as turpentine, especially when the tongue is red & dry &c.

Hydrochloric acid has been much
lauded by some. If diarrhoea be
present bismuth & carbl. acid should
be given or bismuth & opium or
act. lead and opium. Keep bowels
clo quiet. If hemorrhage should
occur turpentine by the mouth
is one of the best & ice over epi-
illiac region. Ergotin hypodermaticly will arrest the intestinal
all hemorrhage in many cases
Should perforation of bowel take
place opium is the remedy mor-
phia hypodermaticly. The forces
of life should be supported by wine
brandy egg beef essence of chicken &c

Acute Articular Rheumatism

Arthur J. Grier

Session 1882-83.

Acute Articular Rheumatism

A constitutional affection characterized by inflammation of a non-suppurative kind affect ing chiefly the white fibrous tissue about or surrounding the joints. Occasionally more joints may be affected. The local phenomena are pain, heat, redness, swelling and loss of function. Often after death little change is found in the joints although

Causation.

This is a disease dependent upon a diathesis which may be inherited or acquired. This latent cause is liable to become active by exciting causes such as cold exposure.

This predisposition is shown by the liability to succeeding attacks after a primary one. Vicissitudes of weather act only as exciting causes. The predisposition is latent within the system. The attack [illegible]

Treatment.

The treatment of rheumatism has undergone great change within the last few years. Although it is a disease liable to serious complications, yet it is one which tends to recovery. Good hygienic circumstances and palliative treatment will conduct an uncomplicated case to a favorable issue. No remedy is a specific in this affection. Remedies must be

adapted to the condition of the patient. The alkaline treatment is the one most generally adopted and certainly has a greater controlling influence than any other. It lessens the intensity abridges the duration of the disease and prevents heart complications. The alkali must be given in large doses so as to render the urine quickly alkaline a partial treatment is useless and should be repeated at short intervals.

Respectfully Dedicated

to the Faculty

of the

University of Pennsylvania.

by the

Author.

Croupous Pneumonia

Definition: The word pneumonitis is derived from the Greek "pneumon", the lung and signifies inflammation of the lung. Lowest divisions, based upon the character and seat of the inflammatory process are recognized, the principal of which are croupous and catarrhal pneumonia. By the former is meant an acute croupous or fibrinous inflammation involving primarily the alveoli of the lungs; and by the latter an acute catarrhal inflammation seated primarily in the ultimate bronchial tubes or bronchioles

The terms lobar and lobular pneumonia are also applied to them respectively and indicate the limitation of the former variety to lobes, and of the latter to lobules. The croupous pneumonia is the form with which we generally meet in practice, our attention will be especially directed to its consideration.

Causes:- Pneumonia is a very common disease and occurs in all degrees of latitude under every variety of climate and at all ages. Males are more frequently attacked than

The former is, however, more strict-
ly based upon differences as
regards the anatomical characters
at different periods of the disease
and will therefore be followed —
The first appreciable change re-
sulting from the inflammatory
process is an enormous hyperaemia
of the vessels at the expense of the
alveoli. The adjacent bronchioles
are similarly engorged, the mu-
cous membrane being dark red
due from fullness of the vessels.
The inflamed part of the lung is
heavier than in the normal state
loses its elasticity and on section
presents a dark appearance and

exudes a quantity of blood. The
state is speedily followed by an
exudation - An albuminous or
fibrinous fluid of great viscidity
is exuded into the alveoli and
bronchioles, and with it a certain
number of leucocytes and red
blood globules. The air cells are
filled and distended with the
exuded matter, which soon coag-
ulates beginning in the alveoli
and extending outwardly through
the bronchioles. This coagulum
contains red and white globules
before referred to as being exuded
and fills out the alveoli and
bronchioles. The process expels

the vessels, and the solids, including the cellular elements, undergo a fatty degeneration and are transformed into an emulsion, capable either of absorption or extrusion, much of it being expectorated. As the irritation is gotten rid of, air again enters the alveoli and the current of the circulation is completely re-established. The air cells are found to have sustained no damage, and indeed the whole pulmonary structure remains intact its functional activity being fully restored except in so far as it is interfered with by a slight nor-

pairment of its elasticity. If the progress of the disease be unfavorable the purulent transformation takes place by which a change is wrought in the color, density and constitution of the inflamed area. The predominant feature is an enormous of pus cells which, with the process of fatty degeneration which takes place in the fibrinous exudation, causes a change in the color of the tissue from the reddish brown to the grayish-yellow tint which characterizes gray hepatization. The enormous production of pus cells takes place principally by the

a small collection of pus is formed, which, by coalescence with several others, may produce a large abscess. Gangrene of the lung sometimes occurs, but this as well as the occurrence of abscess is extremely rare, and only takes place in weak and depraved subjects. The passage of the disease to the chronic form sometimes occurs particularly in strumous subjects. Again, the products of inflammation may be transformed into caseous matter, but this termination is rare in croupous, while it is frequent in catarrhal pneumonia. To this sketch of the pathological anatomy

of pneumonia may properly be added a law of the disease relating to its situation. It attacks in the great majority of cases the lower lobe, and the lower lobe of the right oftener than of the left lung. The right lung is said to be affected in about one-half of cases, and nearly twice as often as the left.

— Symptoms —

In a very few cases the only indicators of the onset of the disease are slight bronchial catarrh and general malaise, after which some chilliness and pain are experienced and the disease proceeds as usual

In the great majority of cases however, a pronounced rigor is the initial symptom - This is immediately followed by elevation of temperature which may reach 103°-105° on the first day. The face is flushed, the eyes injected, there are intense headache, severe pains on the back and muscular soreness in the limbs. The pulse is large and strong. There is usually a whitish-coated tongue, the appetite is wanting, and the stomach is nauseated - Rational symptoms follow which indicate the chest as the seat of the trouble. Severe pain in the side is expe-

-rienced, and dyspnoea and cough come on. The pain is acute and lancinating, quite identical with that which occurs in acute pleurisies. It proceeds certainly in a great many cases from the pleurisies developed in conjunction with the pneumonites and the intensity of the pain is in proportion to the amount of coexisting pleural inflammation. This symptom however varies in intensity and is not always present. It is commonly referred to a circumscribed space at or near the nipple of the affected side and is increased by coughing and

deep breathing. Accompanying the pain, or coming very soon after it, is dyspnoea. The respiratory acts are more frequent and shallow, reaching as high as 30-40 per minute. This is due to the pleuritic pain and to the interruption to the function of haematosis in the affected portion of the lung, or the narrowing of the respiratory field. Cough is usually present at or very soon after the invasion. It is quite characteristic and is hurry, suppressed and painful. The matter at first expectorated is scanty, transparent and viscid, but very

soon there appear the sputa highly distinctive of the disease. They become thick, semitransparent and adhesive, resembling the material which is poured out and coagulates in the alveoli and bronchioles of the lung. They also contain blood-corpuscles intimately incorporated with the viscid albuminous matter, giving them an appearance to which the name rusty expectoration is due. The adhesiveness is such that when a considerable quantity has accumulated it adheres so closely to the bottom of a vessel as to remain when it is inverted. This rusty

expectoration is by no means uni-
-formly present. In some debilitat-
-ted subjects the expectoration is
thinner and more abundant, pre-
senting an appearance like prune-
-juice, whence the name, prune-
-juice expectoration. It is to be
remembered that sometimes in
pneumonia of the apex and in
very adynamic states there is no
expectoration at all. Febrile
movement occurs with the invasion
together with pain in the head
anorexia, thirst, prostration, heat
of skin etc. The pulse varies in
frequency in different cases, rang-
-ing from 80 to 150. Cases differ

greatly as regards symptoms of general or constitutional disturbance, the system being much more tolerant in some persons than in others. These are the important symptoms belonging to the first stage of the disease. During the stage of red hepatization, the symptoms undergo some changes. Pain diminishes or ceases. Cough and expectoration continue, but the cough is less hard and painful, and the expectoration is more easily effected. The matter ejected begins to lose its rusty appearance, becomes opaque, less adhesive, and more abundant. Febrile movement

continues but with diminished intensity. The pain having declined, respiration is easier, but there is still some dyspnoea. Delirium not unfrequently occurs; and is a result of the diminished arterial supply and nervous stasis of the brain. There may be mutterings, hallucinations or noisy and violent delirium. It is evidence of grave pulmonary disease in proportion as it is prominent and troublesome. Slight jaundice is an occasional concomitant. There is due to hepatic congestion resulting from the pulmonary obstruction. Albuminuria is also noted in the quantity

and composition of the urine; the quantity is reduced; the urea and uric acid are increased; and the chlorides are much diminished.

The chlorides are diverted from the urine to the inflamed part, and thus relieve by so doing the condition of inflammation. Albuminuria may also occur as a transient state in consequence of the hyperæmia of the kidneys.

The stage of resolution is inaugurated by certain critical phenomena. These consist in a sudden decline of temperature and the occurrence of some special evacuation, as a free urinary discharge,

a profuse diarrhoea, general sweating an herpetic eruption or considerable expectoration. The sudden defervescence is the most conspicuous of these phenomena and works a great change in the aspect of the patient. Difficulty of breathing subsides, pulse falls, appetite returns, chilliness reappears, muscular strength is increased, and, in short, convalescence is declared. If however, the disease pass into the suppurative stage, the symptoms indicate an unfavourable course. Pulse becomes more frequent and feeble, expectoration abundant and purulent, dysp-

-noea increases and an adynamic state supervenes. The strength of the patient fails and death takes place by asthenia.

Physical Signs

These will vary according as the inflamed area is deep or superficial. On palpation we find increased resistance if the inflamed lung is exterior; no change, if within. Vocal fremitus is increased. Sonority is diminished when lung is consolidated superficially; exaggerated, if healthy lung tissue overlie a solidified area. As exudation progresses, if the periphery be involved, there is greatly increased resistance on

palpation and flatness on percussion -
The respiratory or vesicular murmur
becomes more and more feeble as
the air less and less distends the
alveoli - When exudation is fairly
established there is heard during
inspiration a fine crackling sound
over the inflamed area - the crep-
-itant rale. This is a very signif-
-icant sign in that it occurs in
so few conditions - Since it is pro-
-duced by the sp separation of the
bronchioles and alveoli, adherent
by the viscidity of the exudation,
it is obvious that it can occur
only during inspiration - This
rale ceases when consolidation takes

place, but again returns when the stage of resolution is reached:- when it is known as crepitatio redux. This rale is audible for a brief period only and is followed by bronchial breathing and broncophony. The cause of these is an increase in the conductivity of the lung by consolidation, by which the vocal and respiratory sounds are communicated directly from the larger bronchi to the ear. The disease is now at its maximum and these signs continue until the stage of resolution or suppuration. If the former supervene, moist sounds appear in the bronchial tubes,

crepitatio-redux begins to be heard, broncophony is succeeded by a soft blowing sound, the flatness becomes dullness and vocal fremitus is less decided - The alveoli are gradually opened up to the admission of air and the restoration of the lung is very soon complete - If the disease pass to the stage of suppuration, the dullness of on percussion continues and moist bronchial rales, due to pus in the air-tubes, are prominent. The auscultatory signs of solidification continue, and symptoms develop indicative of increased gravity of the disease -

Complications.

In consequence of the contiguity of the lung and pleura pleurisy is a very frequent complication of Pneumonia, and adds to it the usual signs of pleural inflammation - Capillary Bronchitis is a very dangerous complication. Emphysema is also occasionally coincidently developed. Pericarditis as well as granular degeneration of the heart may occur in the course of Pneumonia. To these may be added rheumatism, gout, and acute abscesses. The existence of typhoid pneumonia is generally admitted and exists a form of pneumonia occurring in the

weak and debilitated and having therefore a specially adynamic character.

Course, Duration and Termination.

Croupous pneumonia is a well-defined self-limited disease which passes through its several stages with considerable uniformity. The stage of engorgement lasts from twenty-four to thirty-six hours; the stage of red hepatization continues up to the crisis which occurs somewhere from the fifth to the eleventh day. The stage of resolution begins with the crisis and lasts three or four days till convalescence is established. In rare cases critical phenomena may occur

earlier than the fifth day, but generally the crisis begins on the seventh day from the day of the initial rigor. The stage of suppuration is not distinctly separated from that of red hepatization unless an abortive attempt at crisis joins the period. It begins about the middle of the second week and lasts for several days. The whole course of the disease is therefore included within three weeks, but favorable cases may terminate even earlier. The mortality from pneumonia ranges from 5% to 25%. Death is due to cardiac failure and obtunding of the nervous centres. This is not always

the result of suppuration, but may follow either stage of the disease. Death may be caused by the inter-extent of the pulmonary lesions, inducing asphyxia. In subjects very debilitated, the termination may be by gangrene; but this is very rare, as also is the formation of abscess. The termination may be in the chronic form. There is then no crisis; the fever diminishes, but does not cease; dyspnoea lessens, but there is still difficulty on making effort; the cough continues, and mucopus and fibrous tissues are expectorated; malaise and emaciation continue, and the phy-

-sical signs of pulmonary condensation remain. There may ensue a gradual liquefaction and extrusion of the exudation, or it may undergo caseation with the usual history of phthisis pulmonalis. This latter result is held to be very rare. Finally death may result from one of the complications as pericarditis.

Diagnosis

Ordinary cases of acute pneumonitis are diagnosed without difficulty; the signs and symptoms being quite distinctive. It may however be confounded with pleuritis, bronchitis, and catarrhal pneumonia. It may be distinguished from pleuritis

by the following points: pneumonia begins suddenly, by a distinct rigor, and is followed by high temperature — pleurisy begins more gradually, there is a day or two of chilliness and the temperature rises slowly: the pain in pneumonia is dull and diffused — in pleurisy it is sharp and circumscribed: in pneumonia we hear during inspiration only, a crackling sound, the crepitant rale — in pleurisy, the friction sound synchronous with the respiratory acts: in pneumonia the dullness is fixed and tympanitic — in pleurisy the dullness is flat and changes with the fluid: in pneumonia the organs retain their

normal position — in pleurisy the heart and liver are displaced by the effusion; pneumonia is self-limited and terminates by crisis — these phenomena are wanting in pleurisy whose duration is indefinite.

Pneumonia and catarrhal pneumonia differ as follows: — the onset of pneumonia is sudden with a chill and pain in the side — catarrhal pneumonia begins with an ordinary bronchitis and a feeling of soreness under the sternum; pneumonia is generally unilateral, is self-limited and terminates by crisis — catarrhal pneumonia is bilateral, not limited and does not end by crisis — if doubt

pneumonia is limited to a portion of each lung, while catarrhal pneumonia is diffused over both. The differences between Bronchitis and pneumonia are equally well marked. In pneumonia the vocal fremitus and resistance on palpation are both increased — in bronchitis neither is affected; in pneumonia there is dullness on percussion — in bronchitis the note is unchanged; in pneumonia we hear the crepitant rale, which is followed by broncophony — in bronchitis we hear a subcrepitant rale which is followed by submucous and mucous rales; the rales and broncophony in pneumonia are

audible at the seat of inflammation only — in bronchitis they are diffused over the chest. In pleurisy between a pleuro-pneumonia and an uncomplicated pneumonia the difference is obvious. Without an examination of the chest, cases of pneumonia with cerebral symptoms may be mistaken for meningitis.

— Treatment —

In treating pneumonia we should ever bear in mind that we are dealing with a self-limited disease which naturally tends to recovery in the great majority of cases, and that to jealous an interference in natural processes may be detrimental to the

patient. Our management also should have especial reference to the particular stages of the disease. The expectant plan as pursued by modern physicians seems to be greatly more successful than the bloodletting and tartar-emetic routine formerly employed. About this, however, there is still a difference of opinion. As high an authority as Dr Williams thinks expectant medicine 'irrational and pernicious'. Dr Gennett thinks that most cases tend to recovery with little other than expectant treatment. Dr Todd thinks that antiphlogistic treatment is dangerous and favors stimulant and supporting

treatment. With these discrepancies among such eminent authorities, we are only left to a rational and scientific management of the individual cases coming under care, and our most careful attention should be bestowed upon the constitutional tendencies, the actual state, and the surrounding circumstances in each case with which we meet.

During the stage of congestion much may be accomplished by a full dose of quinine and morphia (℈ - gr fs), and small and repeated doses of the tincture of aconite-root. In this also the good effects of bleeding are strikingly shown. The indica-

-tions for its employment are high febrile movement, the pulse denoting increased power of the hearts action, and the condition of plethora or at least a robust and vigorous constitution. Soothing and stimulant applications to the chest should also be used. An active purgative should be given to assist in diminishing bloodpressure. For the high temperature nitrous powders may be given as well as effervescing powders which are very grateful to the patient. Cough may be allayed by opium. The treatment in the second stage has reference to the promotion of reso-

-sution, the palliation of symptoms, and the support of the powers of life. To lessen the viscidity and promote the absorption of the exu-dation, the carbonate of Ammonia is probably the best agent. Its administration should be continued up to the period of crisis. During this stage all arterial sedatives should be discontinued. They are unquestionably good during the stage of congestion, but are no longer useful when red hepatization has resulted and can only exert an injurious influence upon the already depressed state of the circulation. As fever is high

during this stage, efforts should be made at its reduction. To accomplish this the cold bath and quinia are the most efficient means; but the quinia should be given in 3 doses every few hours until the temperature falls to a proper point. To combat the depression and support the vital powers tonic remedies, alcoholic stimulants, and nutritious diet are especially indicated. Quinia may be given in small doses. Brandy or whiskey should be cautiously administered, and should be begun with too early rather than too late. In all cases they

form a very important part of the supporting treatment. Suitable alimentation also is an essential part of the treatment and should be practiced from the very beginning without waiting for depression to come on. Milk, beef-juice, chicken broth etc. should be systematically given every few hours. It is certain that this treatment in conjunction with the alcoholic may save life at the time of the crisis when there is great danger of cardiac failure. During this stage turpentine may be well used internally on cases where a weak pulse, a relaxed skin and the "prune juice" expectoration call for

stimulation. During the progress of resolution the same principles of treatment are applicable until convalescence is established. If the disease advance to the stage of suppuration the prognosis is extremely unfavorable but success may follow the continuance of supporting treatment. Suppuration is however very rare.

It can not be too firmly insisted that in the management of this as of so many other diseases hygiene is of prime importance, and our efforts should be strenuously and assiduously directed toward keeping our patients under the most favorable hygienic conditions possible.

Lowry

Diphtheria.

Under different names this disease has been known from the earliest times. About sixty years ago, it received its present appellation, Diphthera, a false skin or membrane. This name, the significance of which relates to the most characteristic local event, namely the formation of a false membrane, has, to say the least, the negative merit of not involving any hypothesis concerning the pathology of the affection. It is a specific, contagious disease, of unknown origin. Occurring in all

latitudes. Except possibly in the extreme north. Affecting all classes and conditions of people, and almost all ages. the majority of cases, patients are between the ages of three and twelve years. It attacks principally the upper air passages, covering them with a yellowish curd like lymph, or, when more intense, with its characteristic tenacious false membrane. But the Eustachian tube may be involved, even extending into the middle ear. the lips, the anus, the vulva and the prepuce

are sometimes invaded.
In certain cases of great severity, portions of the mucous membrane of the mouth and pharynx are separated in the form of sloughs which under decomposition emit a foul odor.
Poisoning the blood, sometimes with great rapidity, it lowers all the vital actions, and more perhaps than all any other disease, favors the formation of blood clot.
Extension of the diphtheritic process to the nose, or deeper tissues of the neck

constitutes an essential feature of the so-called "Malignant" form of diphtheria, and indicates severe concurrent constitutional poisoning, and an almost certainty fatal issue.

Malignant diphtheria often comes on with no more severe symptoms than those which attend the commoner forms of the disease; and even when local signs indicate the course the malady is taking, and the observant physician foresees and dreads the impending change, there is frequently nothing in the patients condition to alarm

himself or his friends. The spread of the disease to the nose is indicated by catarrhal symptoms frequently attended early with some degree of epistaxis, and one long with a copious flux of bloody ichor. In these cases anaemia and prostration come on with great rapidity; the pulse early becomes quick, irregular, extremely small and feeble and the surface cold. The death warrant has been issued, which will announce even that the most innocent and beloved, have to share the consequences of this fatal disease. Hemorrhages may occur

from the mucous surfaces, and petechiae appear beneath the skin; the patient is restless and occasionally delirious; the malady has its fangs implanted, and like the ferocious serpent, robs its victim of his last of life. What its Materies Morbi is or how it enters the system, is yet a matter of conjecture. Lying long dormant, and forgotten, it may be, it often breaks out independent of atmospheric constitutions, and all hygienic surroundings its development and diffusion being subject to no known laws. In this day of germ theories

the preponderance of opinion is that it is thus produced. But the carefully performed experiments of Ostel and others, seem to show that, while fungi always are attracted by the disease, it is by no means certain that they are the cause While it respects no age or condition, some individuals are much more subject to be attacked by it than others. And it is within the observation of all acquainted with the disease, that from some as yet unknown cause some families are not subject to it at all, even while living in the midst of a raging ep-

idemic. Another anomaly is that rural districts are observed, the world over, to be more subject to it than large cities.

The poison is believed to be introduced into the system in one or more of three ways; by inoculation; this is based on instances in which the disease has followed the accidental introduction of some of the diphtheritic exudation into the mouth or nostrils, as happened to ~~the~~ a late English Princess, in kissing her children dying with the disease, or by absorption through some mucous membrane as the

throat or lungs; or it may be
conveyed in the food or water
taken, as is now believed to be
the case with typhoid fever.
Circumstances connected with
the disease make it probable that
the <u>materies</u> whatever it may be,
sometimes lies dormant for a
long time, upon the walls of rooms
where it has occured, or in the
clothing long laid aside of those
afflicted; and that in some cases
it may remain undeveloped in the
system, for a considerable period,
as is known to happen with the
poison of the rabid dog. It is
generally believed that one

attack of the disease affords some protection against future recurrences. In severe and fully formed cases, Diphtheria is easily differentiated from similar local inflammations, by its invariable development of false membranes, the invariable presence of albuminuria in some stages of the disease, and the immediate and extreme prostration of all the vital functions that attend it. In slight attacks the diagnosis is not easy and certain. Eruptions frequently occur among children, and paralysis are not infrequent as

<u>sigulae</u>. They generally affect the vocal cords or muscles, and the depressors of the epiglottis, giving rise to altered voice, difficult deglutition and expectoration. The mortality of the disease varies according to its character, the age and vital resistance, of those attacked. Sometimes it is light, and sometimes it become the scourge of a whole region of country, setting at naught all treatment, and concomitants of every kind. The cause of death in any case is believed to result from powerful contaminations

of the blood, producing thrombosis, or by occlusion of the air-passages by the presence of the false membranes formed therein. Sometimes exhaustion from hemorrhages, or want of food, takes place. In the treatment of Diphtheria, the whole round of the Materia Medica has been tried, without evidence of its value in this disease, and often with injurious results. But while this seems to be the case, certain general principles, in its treatment, should always be borne in mind, and acted upon in every

case we have to treat. Everything should be kept scrupulously clean about the patient and an abundance of pure air admitted and kept at about 60° F. temperature. To support the declining strength, alcoholic stimulants should be frequently given and alimentation by rectum, if it cannot be taken by the mouth. Counterirritation externally, and cold-as with ice internally should be assiduously employed. And occasionally an emetic, especially with young children, may be required and repeated. It is thought by

some, that the chlorate of potassa, given to the full saturation of the system with it, may disinfect the blood, and act as a solvent of the formed membranes. The topical application of the nitrate of silver, of the tincture of iron, and the tincture of iodine, have had warm advocates. But the matured experience of the Profession finds them always uncertain, and often harmful. A Physician of my locality, who has had much experience in the disease, attaches great

value to the frequent insufflation of Quinine and alum, and the topical application of lemonjuice to the whole throat, as far as may be reached, with frequently repeated external warm applications. The rationale of this treatment will at once appear to any medical mind. But let us hope that we may not much longer grope in the dark in this disease, but that Science may soon give us its cause and its remedy, by which the direful consequences of this mal-

ody may be held in check,
and release its tenacious grasp
upon the offsprings of the hu-
man race.

F. W. Lowry.

Diseases.

Diseases of the conjunctiva.

First. Simple conjunctivitis.

On everting the lids a number of reddish streaks may be seen extending backwards from the lids, these are the meibomian glands. If the conjunctiva is congested these streaks will be concealed more or less, & the palpebral portion is injected & rough. The eyelids, caruncle, and semilunar folds are somewhat swollen. The orbital portion is only slightly hyperæmic. some of its superficial vessels being congested.

Diagnosis. if the hyperæmia be in the conjunctiva the congestion

- vessels can be made to move over the sclerotic, by pressing upon and moving the conjunctiva under the finger, this cannot be done in iritis,

The conjunctival vessels are most congested towards its palpebral fold, and decrease in number & size as they approach the cornea the larger vessels are separate and are of a bright red.

In iritis the vessels are congested most around the cornea they form a zone.

In sub conjunctival trouble nearly always have some conjunctivitis but you can always distinguish by pressing on vessels

Symptoms. Burning stabbing, eyes
feel as if they had sand in them
Bright light irritates the eyes if allowed
for any length of time causes patient
to stop work for a while
The secretions from the glands
lachrymal & conjunctival increased
but not altered.
Patient complains of eyes watering
much this is increased by work
or light,
The lining membrane of puncta
& canaliculi become congested
by extension of inflammation.
passage of tears becomes plugged
up and they collect in corner
of the eye. the lids stick together
in the morning.

Causes, sudden change of temperature
Dust getting into the eyes,
Foreign body, Everted eyelashes
Very common in the gluttinous and
intemperate.
Treatment. Remove the cause
Eyes may be be protected by smoked
glasses, weak astringent
lotions, Sulph. Zinc gr 1 to
aqua ℥i, Tannin & Borax
Put in 3 or 4 times a day at night
smear ointment on the lids
yellow oxide mercury.
Cold douche and compresses night
and morning, to closed eye lids
for 10 minutes affords much relief
when overstraining is cause
give rest.

where it is constitutional give tonics and a generous diet, exercise and iron. If inverted lashes they must be extracted.
Where it results from hypermetropia cured by convex glasses.

Muco Purulent or Catarrhal conjunctivitis, here the discharge is mixed with muco purulent matter, and it is contagious. Lids are of a uniform redness, conjunctiva slightly swollen; as a general rule both eyes are affected. The sclerotic is hidden by the congested mucous membrane, as retinues there is a good deal of chemosis this varies in different

[illegible] the lids are slightly swollen and red. The mucopurulent matter collects in flakes and may be seen [illegible] in the tears, not mixing with them. When the lids are [illegible] the tears escape leaving this matter behind. The disease extends to lining membrane of mibomian glands, and they secrete more, which is deposited on the margins of lids during sleep, and when patient wakes eyes lids stick together.

As result of increased secretion of lachrymal glands, tears are apt to get in front of cornea & impair vision until wiped away. The cornea remains clear & the pupil contracts & dilates

[illegible] of these structures are involved. The patient suffers no [illegible] an has no intolerance of light.
An attack may pass off in few days unless the exciting cause continues in operation, Under these circumstances it may pass into the purulent or degenerate into a chronic state.
Causes are numerous, but most often caused by changes in weather. It often has an epidemic prevalence but contagion plays a prominent part, often spreads in this way through schools & families.
Bad air, overcrowding offensive exhalations, Foreign bodies an eruptive fever.

Treatment. Remove cause and put the part at rest. Isolate for [illegible] as far as possible, Look after state of general health, Astringent washes and smear lids with ointment before retiring, The eyes must have rest as well as medicine.

Purulent Ophthalmia

Frequently end in destruction of cornea and partial if not total loss of sight. This is an [illegible], at first cannot say that it will pass on to suppuration, although in few hours all doubt will be cleared away.

In cases arising from [illegible] of gonorrhoea & other contagious matter

Symptoms of intense inflammation rapidly come on

The lids are generally swollen and feel soft and doughy to touch, not as in diphtheritic where they feel hard. It causes the patient pain to evert the lids. The whole conjunctiva is of an uniform scarlet color, and effusion into connective tissue of conjunctiva and chemosis produced. The puncta close and are thrust away from the eye ball, this causes tears to be constantly running over cheek.

The secretion is at first watery and next contains muco purulent matter and lastly will be found to consist of pus often tinged with blood.

suppuration begins inside of a day.
In diphtheritic suppuration does not come on until the fibrous exudation has begun to degenerate, which occurs about fifth day.
It is positively contagious. In severe cases the circulation is impeded and the swollen conjunctiva overlaps the margin of the cornea, I have seen it buried in the folds of conjunctiva. This leads to ulceration of the cornea.
We must examine the eyes carefully as to the condition of cornea.
If we cannot open lids without fear of rupturing something, then we give chloroform which enable us to make a careful examination.
The danger is destruction of cornea.

The ulcerations often concealed by the thickened conjunctiva. This has to be pushed back or we may not see the destruction under it.

If the disease advances the cornea is perforated, and this perforation may be evacuation of most of contents of eye. These changes take place rapidly. A cornea which was clear in the evening is clouded at night and by next day may have sloughed away.

As soon as the cornea is gone the patient is relieved. and he thinks he is getting along well but we know his sight is lost. But as long as any part of the cornea retains its vitality we must treat it

For if only a small part retains its transparency we can give sight by making an artificial pupil.

In most cases if treated right the cornea rarely is destroyed provided we see patient early.

Symptoms. Patient complains of itching this becomes worse, and we have chemosis and swelling of lids often pain extending to temple. In severe cases there will be photophobia.

Prognosis. Depends upon condition of cornea. If it is clear favorable no matter how much the conjunctiva is affected. If ulceration has commenced doubtful, and if sloughing has begun not much hope but we may yet get some sight

[illegible] frequent

Causes. contagion is most prominent cause, gonorrhoeal matter, or secretions from vagina, or from another person's eye who is suffering with it.

Treatment is directed towards preservation of cornea. Nitrate of silver gr x to ℥j painted over lids and also dropped into the eye. or tannin solution, of ℈i to ℥j. dropped in eye, every 2 hours, and continued drops until congestion has subsided & the discharge is less profuse.

The instillation of drops must be continued at intervals night and day of 2 or 3 hours.

Keep bowels open and give tonics.

Wash the eyes out with a solution

of [illegible] every half hour day and night.

When the conjunctiva overlaps the cornea scarification away from the cornea.

Where the cornea is ulcerated nearly through and the elastic lamina still remains, paracentesis should be done, the puncture is to be made midway between the centre of cornea and sclerotic.

Use atropia where the cornea is involved and isolate the patient.

Phlyctenular Conjunctivitis

There is generally two or three pustules, they occur in succession one after the other, and worry the patient a good deal

They are about the size of pin head but
raised above the conjunctival surface
congested around the pustule.
They are of whitish or yellowish color
and usually situated about margin
of cornea, sometimes extend over
it.
The pustule leaves an ulcer which is
healed by epithelium from the bottom
the conjunctivitis goes away and the parts
are restored. this generally takes
about three or four weeks without treat-
-ment. But with treatment I have
seen them heal in three days.
Symptoms. Dont amount to much
Patient complains of grit in eye and
slight pain. After the eye is used
it aches and water

Unless the pustule are on the cornea then we have photophobia and lachrymation and pain.

Treatment. Calomel powder dusted in eye once a day and general treatment tonics, and syrup of the iodide of iron.

Chronic. Granular. Conjunctivitis.

Individuals suffering from chronic form, constantly have attacks of conjunctivitis rendering them incapable of performing their duties of life.

The termination is generally by destruction of cornea.

It may exists for some time without causing much trouble but the uneven surface often leads to vascular opacity of cornea

Symptoms. The only constant symptom is the granular bodies under the lid, which cause attacks of conjunctivitis.

Patient complains of slight pain intolerance of light and lachrymation, After each attack the neoplastic growths increase in size)

The granular bodies undergo absorption and leave a cicatrix, this causes vascular opacity of cornea by rubbing over it

The patient ultimately becomes almost blind.

Treatment. Sanitary measures good food, fresh air

Iron, Fuchsine, Food [illegible] &c.

[illegible] Sulphate of copper in crystal.

All conjunctival troubles differ from corneal and iritic troubles in that they do not cause much pain, photophobia, nor lachrymation. The injections in corneal and iritic troubles generally forms a zone around the cornea.

In conjunctival troubles the lids are always the most involved.

James. B. Lowry
Year 1883

Respectfully Submitted
To the
Faculty of Physic
of the
University of Maryland
By
H. C. Harland
Virginia.

1883

amount of free hydrochloric acid is very minute.

The activity of the stomach depends on two substances, pepsin and acid, the pepsin acts as a ferment—a something which causes digestion, separately they will not digest.

The secretion of the stomach may continue for several hours. [illegible] to the last [illegible] is a marked diminution in the secretion of pepsin though with the acid [illegible] is not altered during [illegible] the acid is used up, and [illegible] pepsin is not.

The pastra [illegible] acts on all

Therefore at the time the contents of the small intestine reach the ileo-caecal valve they are to a large extent deprived of their nutritous constituents. The secretion of water into the small intestine is about equal to the absorption from it therefore the contents of the intestine near the ileum is as fluid as in the duodenum though much more broken up.
Passing on into the large intestine we once more find the contents distinctly acid but this is not caused by the secretion of the intestine as their secretion

is alkaline, though perhaps caused by a ferment going on in the contents themselves.

We have no definite knowledge of the particular changes which take place in the large intestine more than its chief characteristic work is absorption, and by this absorption the chyme becomes as it approaches the rectum a firm solid substance.

The colour changes from the bright orange into a dark and dirty brown.

The movements of the small as well as those of the large intestine are peristaltic

A Brief Sketch of the Cinchona Barks.

By

Hugh Francis Hall

1883

The Cinchona tree which has proved to be so at an incestimable boon to mankind from the valuable medicine found in it is a native of South America, and is found most abundantly in the mountainous region of Peru, Ecuador and Bolivia, from about 10° north to 30° south latitude. It is also found in New Granada and Venezuela, near the Caribbean Sea.

The plant received its name from the Lady of the Spanish

Viceroy: the Countess of Cinchon who was cured of a fever by taking the powdered bark.

The climate best suited to this plant seems to be one which has a great deal of rain, with a mean annual temperature of about 60° F.

The Cinchonas are not found in the valleys: the altitudes appear not to be so condensed to their growth in fact, those of best quality are found at quite high altitudes about 5 000 feet

at [illegible] sea level, and [illegible]
some region [illegible] high
as 10000 feet above sea level.
The Cinchona are [illegible]
green trees which attain
a height of from 40 to 80
feet, with a diameter [illegible]
varying from 6 to 12 inches.
Its leaves are similar to those
of our magnolia found in
the South; of an ovate form,
bright green in Cocoa.
The bark of the tree is
the valuable portion and
this is gotten from both the
trunk and roots. The col-
lection of which is done —

chiefly by the half breeds
and native South American
Indians who are called Cos-
carilleros, from the word
Coscara meaning bark.
These bark gatherers when
the season for cutting the bark
come equip themselves with
axes, mattets &c. betake them-
selves to the mountains
where they establish camps
and begin their operations.
They first beat the trunks of
the trees thoroughly, which stand-
ing, in order to break up the
adhesions between the bark
& woody fibre and [illegible]

of the bring more easily de-
tached. The spaces are dimin-
ed by driving wedge under
them.

The trunk and roots hav-
ing been stripped, the bark is
then felled when the bark of
the trunk is peeled off.
Exposure of the freshly de-
mand bark to the sun
rays causes it to assume
the quilled shape which
it has when it comes in
to the markets. The thicker
bark obtained from the
trunk and roots is placed
in layers, and weighted

of the European [illegible]
chief among which were the
Dutch and English to take
steps leading to its [illegible]
[illegible] in their own [illegible]
[illegible]. The English appear
to have been unsuccessful of
the many fruitless attempts,
establishing a plantation
in India on one of the
ranges of the Himalaya Mountains, as well as in Ceylon &
Punjab.
Efforts to raise Cinchona
have been quite unsuccess-
ful of late years in the
island of Jamaica also

in Mexico, although South America is also our chief source of supply, that obtained from India being met with cheaply [illegible] cultivation.

These experiments in [illegible] during the growth of the Cinchona into other countries make it impossible [illegible] ever as [illegible] as [illegible] [illegible] the friendly relations existing between the United States and the South American Republics are such that [illegible] — for it would be a serious loss of [illegible]

valuable drug was unobtainable.

The value of Cinchona as a medicine was first made known to Europeans by the Jesuit missionaries stationed in the Spanish provinces of South America, he is the early name which the plant or bark bore of Cinchona Jesuitica and Cortex Patitus.

This was about the middle of the seven teenth century.

For many years after the discovery of the wonderful properties of the Cinchona bark it was used in the crude

form its Alkaloids not —
having been discovered.
In the year 182 two Eminent
French Chemists M. M. Cave-
ton and Pelletier succeeded
after many laborious experi-
ments in discovering the
basic salt of Cinchona,
which they called Kinin.
This discovery of quinine,
for such it proved to be, was
hailed by the profession with
delight, for the remedy was
not only in a more eligible
form, but its administration
was not attended with so many
unpleasant effects as was

that of the crude bark, which often produces nausea and vomiting.

The three most important varieties are: Cinchona Flava; Cinchona Pallida and Cinchona Rubra. They contain several alkaloids which are present in very variable proportions.

The most important alkaloid is quinia which is found most plentifully in the Calisaya or yellow bark, which contains not less than from 2 to 5½ % of it with not quite so much of the cinchona and

a small quantity of each.
The pale bark contains more of Cinchona than quinia and only a small amount of each.
Red Cinchona has about equal quantities of both alkaloids, good specimens yielding from 2 to 3 % of each.
The therapeutical appreciations of the alkaloids of Cinchona especially that of quinine, are [illegible] in their extent. Probably, no drug is known the name of Specific in much as quinine does in malarial diseases. Its action is perfect

throwing out the poison and
wars, and bringing the sys-
tem back to its healthy con-
dition.
What the malarial stricken fun-
tion of our country would be
without the gift of Providence
it is impossible to conjecture.
But that they may never be
compelled to forge its own
effects, is the sincere wishes
of all Physicians.
Feb. 4th 1853.) Truly,
Baltimore Md.) Ralph Trauer Nau

Smith N R

1883

Scarlet Fever

This well-known disease may be defined as an infectious febrile affection, which manifests itself after a period of incubation of from four to six days. It is characterized by a scarlet efflorescence of variable intensity upon the skin and mucous membrane of the fauces and tonsils, the efflorescence commencing about the second day of the fever and declining about the eighth. Scarlet fever or Scarlatina is often accompanied by inflammation

2nd

of the throat, and sometimes
of the submaxillary glands.
Like measles, it is a disease
which occurs most frequent-
ly among children; but it
is more to be dreaded.
As a general rule, Scarlet fever
occurs only once during life.
but occasionally twice.
If a person has a recent
attack there is very often no
rash little or no throat affe-
ction and the disorder
runs a very favorable course
Not from my own experi-
ence, but from others I can
state that Scarlatina since

3rd

Exanthemata may be followed immediately by desquamation of the cuticle, and subsequently by renal congestion with albuminuria. The scarlatinal poison is of a subtle nature and does not appear to lose its power for some time. It attaches itself to bedding, carpets, clothes and other furniture. It may be transmitted by fomites as is proved by many instances of persons having carried the disease home to their own families. The poison appears to be destroyed by a temperature

4 Fr
11

If 203-07. The infecting power is probably greatest at the beginning of desquamation. Some think there is some relation between the severity of the disease in the recipient and that in the individual yielding the poison. Attention has, of late, been directed to the circumstance, that patients who have recently undergone a surgical operation, or who have wounded themselves accidentally, may suffer from a rash which cannot be distinguished from scarlatina, and which is followed by

desquamation; although no history can be obtained of their having been exposed to infection. Varieties. There are three varieties of this disorder Scarlatina simplex in which the skin is chiefly affected; Scarlatina anginosa in which both skin and throat are decidedly implicated; and Scarlatina maligna in which all the force of the disease seems to be expended upon the throat. Scarlatina Rimpler, or Scarlatina sine anginâ, after a period of from four to six days commences

6 Fh
11

commences with slight soreness about the throat nausea or vomiting chilliness soon succeeded by fever, lassitude, and headache. The pulse is frequent the skin may have a temperature of 103° or 104° deglutition is somewhat difficult, and there may be restlessness with wandering at night Convulsions very rarely happen The eruption appears on the second day in the form of numberless bright red points which show themselves first on the face

and neck then on the arms and abdomen and lastly on the lower extremities. Sometimes the rash comes out so quickly that in twenty-four hours from first appearance it covers the whole body. Though more commonly a day intervenes between each crop. On the limbs, but especially about the fingers there is a diffused and continued efflorescence upon the trunk the rash is distributed in irregular patches. The eruptive is of a bright scarlet color most distinct about the loins and flanks

of the joints it may generally terminate by desquamation of the cuticle, which begins about the end of the fifth day upon those parts where the rash first appeared. On the face and trunk the desquamation is in the form of bran, while on the hands and feet large flakes of cuticle are detached so that it comes away in large flakes, but not always. At the same time that the efflorescence has been spreading on the surface of the body the mucous membrane of the mouth and fauces and sometimes

9th

as well as of the gastro-intestinal canal, has also been affected. The tonsils are often congested and swollen, while the uvula is likewise seen to be oedematous. The tongue especially puts on an appearance characteristic of scarlatina. This organ except at first the lips and edges is at first covered with a thick white fur, through which the red elongated papillae project, but as this fur clears away, the whole tongue becomes clean and perternaturally red, and of a strawberry appearance. The affection of the mucous and mouth

10th "

Terminates by resolution
However mild the symptoms
may be, as well as in other
varieties of Scarlet fever. The urine
should be frequently examined,
more particularly as to its quan-
tity, reaction, and freedom from
albumen. Albumen is seldom
found before the sixth day
The greatest danger in the
suppression of urine with uræ-
mia, and the deposition of
fibrine in the right cavities
of the heart. Scarlatina Anginosa
commences with more violent
symptoms than the preceding
There is headache with severe

11th

febrium, more pungent heat of the skin, troublesome vomiting, restlessness and marked prostration. About the second day, complaint is made of stiffness of the neck, uneasiness of the throat, hoarseness, and pain on swallowing. The fauces, palate, uvula, and tonsils get red and swollen, while the inflamed surfaces are found more or less covered with ulceration of coagulable lymph. If this inflammation goes on the febrile symptoms increase, the skin becomes very dry and hot, the temperature 103° or perhaps higher, the tonsils get

gorged with blood; while foul and deep ulcers quickly form on them. The efflorescence does not run as regularly as in the simple form: it does not appear so early is delayed to the third or fourth day, comes out in scattered patches on the chest and arms, and shows a tendency to vanish the day after its appearance, and to re-appear partially at uncertain times. As the eruption nears about the fifth or sixth day the fever and inflammation of the throat begin to abate although the latter often remains sore causing the act of deglutition

13th

to be painful and difficult, for a week or ten days after the disappearance of the rash. During the progress of the disease particular attention should be paid to the internal organs since there is a great predisposition to inflammation of the internal organs serous and mucous membranes. Scarlatina maligna, differs but little in its symptoms, at first, from Scarlatina anginosa. The fever soon assumes a malignant or typhoid character. There is great irritability, restlessness a feeble irregular pulse appressed respiration, obstruction

of the fauces with viscid phlegm, occasionally diarrhoea and generally delirium. The tongue is dry and brown, tender and chapped; the lips, teeth and gums are covered with sordes, and the breath is extremely fetid. The throat is not much swollen but appears of a dusky red hue. The cervical glands are often involved in the inflammation. The rash is exceedingly irregular as to the time of its appearance and duration. In many instances this form of scarlet fever terminates fatally on the third or fourth day & it is so severe that only

that only patients of vigorous constitutions survive. A great hope may be entertained, however, if the seventh day be passed.

Sequelae. Children who have suffered from scarlet fever are very liable to have their health permanently affected, and to become afflicted with some of the many forms of scrofula; especially tuberculous ulcers ophthalmia, scrofulous enlargements of the cervical glands, abscess in the ears, diseases of the scalp &c. Occasionally they suffer shortly after the attack from acute rheumatism, and from rheumatic pericarditis

16th

Diagnosis. Suspect it when there is frequent pulse & hot skin Eruption comes out in 24 hours and appears on body first, sore throat and rash last with no catarrhal symptoms. Strawberry tongue. also cerebral symptoms The Temperature falls about the 3-7th day in mild and on 10th in grave cases. In Scarlet fever Bronchitis and Pneumonia are rare complications.
Prognosis. A dark red rash or coldness of surface hemorrhage or convulsions, vomiting or purging bad signs. Fibrinous tube casts and albumen in urine and

17th

deficiency of urea, are also bad signs. Warm perspirations are favorable. Occurring during pregnancy it is invariably fatal. If diphtheritic deposits occurs after Scarlet fever it is fatal. Causes. Contagious but propagated by epidemic influences Period of incubation from 8 to 14 days. Contagious in all stages Death from a second attack is unknown. Under three months the child is safe. After ten yrs. liability decreases. Treatment. A warm room well ventilated temperature 68°–70°F. As a prophylactic (R Ext. Belladon. grx Alumoz j. In constipation gentle laxatives)

18th

Rx Ext. Belladon grs iij Alcohol ℥j

Aquae ℥j M. Sig. One gr for each year
On first day - an emetic. Ipecac grx
Alum ℥j. In constipation gentle
laxatives, as Magnesia or neutral mix
ture. Protect from cold. To allay
excessive itching, rub with vinegar
and water or cold cream with
Glycerine. For second form a gargle
if the child is old enough; if not use
an atomizer Flaxseed lemonade etc
For stiff neck Rx. Lin. Sapon. Lin Camph
Tr. Opii. M. Sig use locally. To reduce
the temperature give Quinine.
In convulsions - warm baths (92°
-96°F) If pulse be rapid and forcible
give a little veratum viride. In
all cases use heated applications
out side. Take a teaspoonful

19th

of honey to one lemon, and
Oj of Flaxseed tea and drink during
convulsions. Stimulants. No leeches
or blisters. Respiration should be
kept free. Potass Permagnate, by
atomizer. For ulcerations of throat
use R. Ac. Carbol. Pot. Chlorat. Pot.
Permang, Glycerine. When dropsy
occurs vapor baths. In malignant
cases use mustard foot baths & cold dou-
ches to head. Bath of 95°-96° from
15 to 30 min. Ammon. Carb. Salt &
pepper gargle. Ice cream and acid
fruits. No bleeding or purging.

Respt
A. K. Smith

To

Dr. Wm. R. Canfield

My Preceptor

I dedicate this Thesis - a slight acknowledgement of what I owe his teachings and example

G. W. C.

Chancre

the Chancre is the initial lesion of syphilis. It is found that the interval between sexual intercourse & the appearance of the Chancre is about 14 days. An interval of two or more between the last & [illegible] & the [illegible] of a suspicious sore. when the genitals render it [illegible] that the latter is a true Chancre. The induration of a Chancre is of a [illegible] of the tissue beneath & [illegible] sore. it is [illegible] [illegible] actions it has the [illegible] of

not so easily found as in men. Treatment of Chancres they are treated by mercury. Calomel is used as a powder & dusted on the sore. Dr [illegible] of University Hospital Baltimore generally uses Calomel or Bismuth powder. Iodoform is often used with advantage.

Buboes

An enlargement of the lymphatic glands they may proceed from a variety of causes, tending to irritate the lymphatic system. And may occur in lymphatic [illegible] in any part of the

body. The syphilitic bubs on
the contrary is a specific disease
the result of inoculation
with the matter of the chancre
an open syphilitic bubs is nothing
but a chancre, it has same
kind of excretion as chancre
The syphilitic bubs rarely appears
until second or third
week, and rarely suppurate —
Diagnosis. We may [illegible]
these for strumous troubles
but then the history of case
will set us all right. [illegible]
we will be likely to have chain
of glands involved and non-
suppurating [illegible]

he is gloomy and desponded
his hair is dry, appetite
poor, pain in his joints &c.
In this stage we have various
eruptions of the skin - according
to recent authors they
have been divided into six
varieties - namely the scaly
vesicular, pustular, tuber-
cular, exanthematous and
the papular, it is said how-
ever that tuberculous, papular
and pustular may be regar-
ded as belonging to the
tertiary form of syphilis -
[illegible] all have more
or less circular forms and

lectures - on syphilis)
The parts most likely to be
attacked:- tongues - lips Cheeks -
tonsils and in [illegible] of
[illegible] have foreskin of [illegible]
involved in female [illegible]
vagina and [illegible] we
often find them -
Treatment - Sprinkle with
Calomel - Iodoform is very
good - the following oint-
ment is very good:

℞ Calomel
Zinci Sulph. ā ā ʒ ii
Adeps ℥ i

do not let the opposed
surfaces - [illegible]

You can keep them apart by
a piece of lint
When they occur in the
mouth it is well to touch
with nitrate of silver or some
strong caustic keep them clean

Tertiary Syphilis

Tertiary symptoms appear
after the poison has [illegible]
the system and the effects
it now produces are known
as tertiary syphilis. The
period that it generally
shows itself is from six
to eighteen months. They
often then do not occur until
after many years, maybe

cured itself without treat-
ment, then again we [illegible]
cases after very best treat-
ment and attention [illegible]
on the part of surgeon and
patient that do not improve
until it seems to wear
itself out.
General treatment of syph-
ilis - hygiene and tonics are
very important keep the bow-
les [illegible] plenty exercise in
[illegible] air - [illegible] in smoking
and drinking should be
stopped. Mercury is the spec-
ific for syphilis, but do
not salivate - [illegible]

[illegible] is perfectly clear and
the [illegible] needle
clear and you will [illegible]
no [illegible]

The end

Diseases of the Maxillary Sinus

Chas. C. Harris D.D.

Diseases of the Maxillary Sinus.

In the autumn, like in other cavities we naturally expect to find all the diseases to which bone and mucous membrane, in other parts, are subject.

Diseases of this cavity are frequently found in connection with irregular dentition, and most often in people who have passed middle age. For then do we find dead and decayed teeth which are above all other conditions prominent in giving rise to troubles here. Indeed I am almost justifiable in

asserting that there are only two sources of trouble existing in the antrum:- the first and most important being secondary to diseases of the teeth; second - those common to mucous membranes, as - ulcerations, dropsies, tumors &c. Here we sometimes have syphilis showing itself the lesions of the secondary form more particularly. This however, is so exceedingly rare even in the tertiary stage that we infer the cavity is only affected, when from continuity of structure, the

disease is conveyed to these parts.

Remembering that the most accessible entrance to the antrum is through the buccal pocket of the 1st. or 2nd. molar, since the roots of these teeth frequently project into the cavity, we can readily infer that disease of the teeth is easily transferred to the mucous lining. Among the causes of disease may be mentioned - periodontitis, roots of teeth becoming irritable, blows about the face, surgical operations &c.

Such constitutional

troubles, as scurvy predispose to disease here and usually show themselves as dropsy, abcess and the like.

Mercury has a peculiar pathological relation to the Antrum.

Seeking the cause we must never fail to lay stress on the importance of the teeth. If the arch be clear of these organs, do not be contented but proceed to make an incision in order to be certain there is nothing like an impacted root which may produce irritation

Remember that any tooth may be the initial cause as by an alveolar abcess burrowing through the bone.

Should the alveolus have its complement of apparently sound teeth make a thorough examination to exclude the possibility of a dead pulp. This condition may be diagnosed by tapping the tooth to detect any soreness or by reflecting light upon the teeth to recognize any opacity or differences in appearances of one from its adjacent

fellows, also in the drinking of water from a spring, etc., de-fect any special positiveness.

A condition frequently met with is mucous en-largement due to catarrh of the schneiderian membrane which is reflected into the sinus and recognized by in-creased secretions. While if sufficient enlargement takes place to close the antral opening the sinus becomes dry, and the cavity filling with the fluid. The face becomes swollen accompan-ied with pain and a

sense of weight, Epiphora being a common result.

Disease of the Antrum is, as a rule, easily diagnosed, and often by a single symptom — while if we combine all symptoms there will be no excuse for failure in diagnosis certainly as to the seat of disease — while to ascertain positively the exact nature of the trouble is often impossible, for instance — to diagnosticate between mucous & osseous tumors, cancer & abcess.

When the external walls are softened & distended the tumor may be reduced to an extent by pressure, but will return on removal of same. When this condition exists if there is an opening, the escaping fluid may be increased, when we will be pretty safe in excluding a tumor.

Dropsy is now recognized as one of the most frequent diseases of this sinus and is commonly secondary to periodontial inflammation. In cases due to this cause

we are likely to find an inflammatory condition of surrounding tissues with more or less disturbance of the secretions.

The natural opening of the cavity which is situated in the middle meatus may be obliterated by congestion, thus preventing any egress of fluid when the results may be easily surmised.

The fluid allowed to accumulate will soon distend the cavity to such an extent as to visually interfere with sight, as

well as to slightly disfigure the face, and finally some part is ruptured, which is most frequently, and fortunately, the palatine wall, giving to egress. Here it may be mentioned that the weakest point in the walls of the antrum are the middle meatus, the floor of the orbit, the hard palate and the canine fossa.

An opening once established will allow the contained fluid to discharge; this accomplished the patient is happy & gratified, believing

under the impression that a cure has been established; but alas! this contentment is of short duration, for the opening may soon heal or be plugged up, when again the pain is experienced until the opening is renewed by nature or artificial means. Even now the disease has become chronic and the constant unhealthy and disagreeable discharge proves unpleasant to patient and associates, for it is here that abnormal secretions of the most

pimple, character take on a most offensive odor.

Now if the disease shows no tendency to abate it may prove disastrous by causing caries and even cancer has been known to develop.

This dropsy being a result of inflammation is further recognized by pain of a lancinating or dull & deep seated character with oedema & tenderness of the cheek.

The occurrence of rigors and fever is indicative of the formation of pus

and a more chronic condition.

True abcess is extreme-
uncommon & many of the
cases cited are simply of a
dropsical character having
become chronic & giving rise
to a purulent effusion. The
abcess not uncommonly met
with is an alveolar abcess
which has burrowed through
the bone, mastoid & its dis-
charge under the peri-
steum and thus we ac-
count for the non-escape
of the fluid through
the natural opening in
many instances.

This condition should always receive the earliest attention, for this softening & destructive process will soon produce an opening, which, when in the face, leaves an unsightly cicatrix, or what may prove more serious — an eye may be sacrificed.

Both malignant & non-malignant tumors are found in this sinus and when they do exist should receive the closest attention for the malignant growths rapidly

inside the surrounding parts & the consequences may have quite serious scarring deformity and possible permanent blindness while more frequently necrosis or caries of the bone results.

Treatment

When the result of syphilitic cachexia, of course the specific constitutional treatment must be directed with the addition of local antiseptics. The constitution of the patient must

receive attention in every case with tonics & other treatment as indicated.

Before local remedies may be employed an opening must be effected, which may be accomplished by enlarging the natural opening or what is better by extracting the 1st. or 2nd. molar on the affected side giving preference to the one which is in the most diseased

The buccal pocket of the 1st. molar being best adapted for the application

of remedies & the escape of fluid. Do not hesitate to enlarge it, even sufficiently to admit the finger. Now a canula should be inserted through the opening to allow the continual escape of fluid and prevent the opening from closing.

This should be made of gold, silver or platina, the latter being preferred because of its durability and easy adaptation.

This tube must be secured to an adjoining

tooth. Even a sound tooth should be sacrificed when there is no tendency to cure.

An opening having been secured, tepid water injections should be made to thoroughly wash out the cavity, when further treatment may be instituted. Caution must be taken to prevent food from entering through the opening as any foreign substance will only excite

inflammation and thus counteract the treatment.

While antiseptic, stimulating and astringent washes are indicated, it must not be forgotten that cleanliness is "sine qua non."

A weak solution of Permanganate of Potash is an excellent remedy; at the same time, stimulating injections of the Sulphate or Chloride of Zinc, Tincture of Iodine, Chlorinized Water &c should not be

neglected. Solutions of Sulphate of Zinc and Tannin and Acetate of Alumina are excellent while a douche of solutions of Salicylic Acid and Chlorate of Potash must be borne in mind as specifics.

Chloride of Zinc is most beneficial when degenerating ulcers are produced from retained secretions.

Solution of Chloral Hydrate is most basically beneficial in all diseases of mucous

membrane; being itself without a perceptible odor, and at the same time both antiseptic and disinfectant besides securing an agreeable and soothing sensation to the patient. One dram to the pint being sufficiently strong.

This agent justly stands second to none as an application to affections of the nasal passages.

Thesis.

Respectfully offered to the
Faculty of the
University of Maryland
School of Medicine.

Feb. 9th 1883.

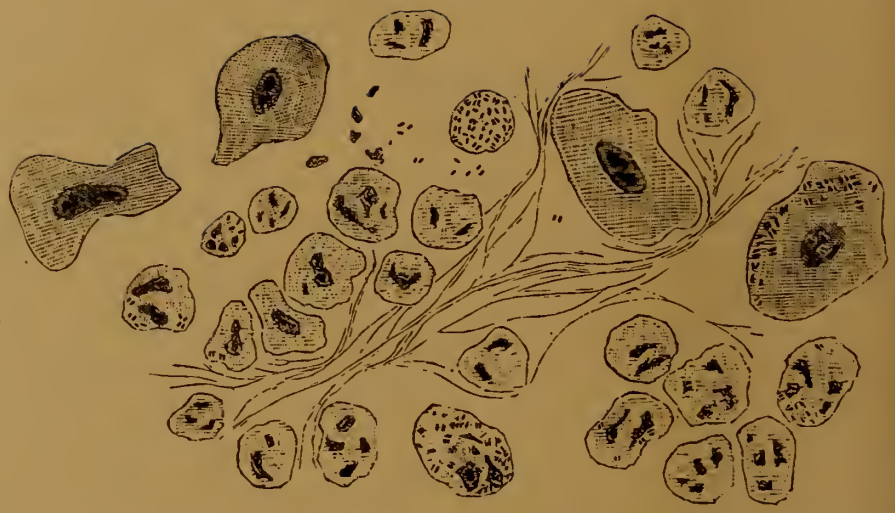
IS GONORRHŒA A BACTERIA DISEASE?

AL INVESTIGATIONS CARRIED ON IN THE OUT-DOOR DEPARTMENT OF SURGERY OF THE UNIVERSITY HOSPITAL, BALTIMORE.

BY NEWBERRY A. S. KEYSER,
Student of Medicine at the University of Maryland.

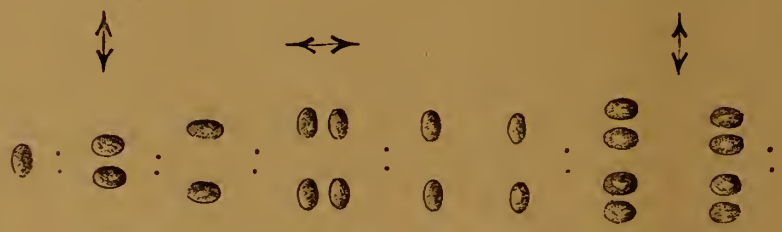
(Reprint from Maryland Medical Journal of February 15th, 1883.)

Plate I.



Gonorrhœal Secretion with Neisser's Gonococci Magnified 800 Diameters.

Plate II.



Manner of Growth of the Gonococci. (after Neisser.)

Drawn by Newberry A. S. Keyser, Balto.

IS GONORRHŒA A BACTERIA DISEASE?

SOME INVESTIGATIONS CARRIED ON IN THE OUT-DOOR DEPARTMENT OF SURGERY OF THE UNIVERSITY HOSPITAL, BALTIMORE.

BY NEWBERRY A. S. KEYSER,

Student of Medicine at the University of Maryland.

(Reprint from Maryland Medical Journal of February 15th, 1883.)

There is probably no question of more interest before the profession to-day than that of the dependence of infectious diseases on the presence of certain definite organisms.

When we see a man one day in full health, and the next day sick; when we see, furthermore, that his sickness follows a certain definite type, that at one time we will always have inflammation of certain organs, or that his fever lasts a certain time and is of a certain degree; and then, after a time, his disease either terminates in recovery or in death, we are almost instinctively led to suppose that something has entered into the body producing, as the effect of its presence, these changes. It would be just as logical to suppose that a field of grain could arise spontaneously, as that diseases, which differ among themselves, as the different sorts of grain might be said to differ, could have a spontaneous origin. The body represents the passive field, the disease the growing crop, the seed sown in the field from which the crop proceeds the materies morbi of disease. That this materies morbi is in every case a definite living organism is a matter which may now almost be considered as having been proven, not only by direct but also by indirect experimentation.

This question is one of interest in advancing the general art of medicine, and of bringing it nearer to its ultimate goal, that of withdrawing it from the sloughs of speculation and of making it a science in the true sense of the word. It is also a question from which has sprung practical results of the utmost importance, not only in hygiene but also in therapeutics.

Among the diseases which we know

are caused by a definite organism, and in which the organism is distinguished by peculiarities of form and of growth from other organisms, is gonorrhœa.

To Prof. Neisser, of Breslau, is due the credit of having discovered the constant presence of a bacterium in the secretions of gonorrhœal inflammation. For a long time past it has been asserted by various observers that bacteria were present in the gonorrhœal secretions, still no definite description of their forms was given. In the indefiniteness of our knowlege a few years ago concerning bacteria, the presence of minute objects under the microscope and of debris of all sorts was sufficient to cause a diagnosis of bacteria to be made. Neisser* was the first to furnish us with any positive light on the subject. His investigations published in 1879, on the "Organisms Found in Gonorrhœal Pus," are of extreme interest; not only for their intrinsic worth, but also as giving the impetus which has started a number of investigators to work on the subject, giving results worthy of our closest attention.

Neisser investigated the secretions of thirty-five cases of gonorrhœa, also seven cases of purulent ophthalmia neonatorum and two cases of blenorrhœal ophthalmia in adults; and in each of these cases he found constantly a peculiar form of micrococcus. These micrococci occur in groups, which are always intimately connected with the pus corpuscles and apparently situated in the bodies of these; though Neisser says, that when they are observed with the best homogeneous immersion glasses, they will be seen not in the body of the cells but upon their surface. The single individuals, he continues, are half-round in shape and unusually large. They are seldom seen lying singly. Almost always one sees two micrococci lying close to one another; so closely, indeed, that they give the observer the impression of a single organism having a shape similar to that of the figure eight. As a general rule, in the pus cells multiples of them are seen; two, four, eight, sixteen, and so on; and in some cases their number in the cells is so great that the cells will be completely filled with them, resembling then very much the plasma cells described by Ehrlich. Neisser also investigated pus from other sources and failed to find them, viz: Soft and hard chancres, bubo of every description, etc., etc. In thirteen cases of simple vaginal secretion they were not found; but they were found to be abundant in the purulent secretions of two young women who were proven to have been misused by a man suffering from gonorrhœa. These experiments of Neisser have been confirmed and extended further by various observers.

Weiss * found these micrococci in twenty-three cases of gonorrhœa in females, and nine cases of the disease in males; but failed to discover them in his investigations of the secretions of simple urethritis, different forms of chancre, bubo, balano-posticus, vaginal leucorrhœa and suppurative arthritis.

Bokai † cultivated the cocci from secretions of (*a*) an acute conjunctival blenorrhœa which was a few days old; (*b*) an acute conjunctival blenorrhœa of the second week (*c*) acute gonorrhoea of the first, second and third week. Bokai does not describe his exact method of cultivation; but contents himself with saying, that it was done in such a manner as to preclude the presence of other organisms. Each

* A. Neisser.—Centralblatt f d. Med. Wissenschaft, 1879, No. 28, "Ueber ein der Harnrœhrestrippers eigenthuemliche Mikrokokkenart."

* Dr. F. Weiss.—"La Micro du Pus Blenorrhagique." These de Nancy, 1880, and Gazette Hebdom., Nov. 12th, 1880.
Weiss.—Annales de Dermatol., 1881.

† A. Bokai.—"Ueber das Contagion der Acuter Blenorrhœæ." Centralblatt, 1880, No. 74.

of his culture fluids after two or three weeks was swarming with micrococci, which were in every way identical with those described by Neisser. With these cultivated micrococci, infection experiments were made on the human urethral mucous membrane. Six students, whose self-sacrifice in the interest of science is ever to be commended, offered themselves as subjects of experiment. In three cases an acute urethral gonorrhœa, with all the well-known symptoms, was caused.

Neisser's results were also confirmed by Aufrecht,* Ehrlich,† Gaffky, Rücker,‡ Brieger; and by the ophthalmologists Sadtler, Leber, Haab,§ Hirschberg¶ and others.

In a second publication on the subject‖, Neisser again lays great stress on the fact that the micrococci described by him in his previous communication differ not only functionally, but also morphologically from all other forms. He describes fully their manner of growth, which he illustrates as shown in Plate II. His description is as follows:

(*a*) The isolated micrococcus is round.

(*b*) It grows very soon to a long-oval, short corpuscle.

(*c*) It then quickly begins to divide in the middle: so two micrococci arise. It cannot be decided whether the great majority of micrococci which are seen in this stage, *i. e.* in pairs, depend on a long adherence of the two single micrococci to one another, or whether it is that the multiplication by division takes place so rapidly that the single individuals in their isolated form seldom come under observation.

(*d*) Finally, the single micrococci separate from one another, and remain separated by an interval which corresponds to the size of a micrococcus.

(*e*) Soon the single micrococci begin again to elongate; but this time their direction is at right angles to the first division-plane. In this manner, in that every individual again divides into two micrococci, very frequently small groups of fours arise. These colonies of micrococci are enclosed in a mucous-like membrane, which is made visible by the throwing in of diaphragms.

Neisser cultivated these bacteria and found that the best results were obtained from a cultivation on flesh-extract peptone gelatine of neutral reaction. The prepared gelatine was spread out in shallow vessels and inoculated with the gonorrhœal secretion. After this inoculated gelatine was kept twenty-four hours in a warm chamber, it was covered with a soft yellowish-white membrane having serpiginous edges. He carried this cultivation through seven generations, and made numerous inoculation experiments on the lower animals, but without success.

So far we see that it was pretty certainly ascertained that this form of micrococcus is always associated with gonorrhœa; still, the causal connection between the two could not be considered as being satisfactorily established; the only work which had been done on the subject being that of Bokai, which left much to be desired in clearness.

The next work on the subject was that of Krause.* This investigator

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*A. Aufrecht.—Pathologische Mit.

†Ehrlich.—"Ueber Methylen blau und s Klin. Bacteriaskopische Verwendung" Zeitschr. f. Klin. Med. 1, pg. 70, 1881.

‡G. Ruecker.—"Ueber Polyarthritis Gonorrhoica," Deutsche Med. Woch. 1880.

§O. Haab.—"Kleinere Ophthalmologische Mit." Corres. f. schweizer Aerzte. O. Haab.—Der Mikrokokkus der Blenorrhœa Neonatorum." Festschrift, Wiesbaden, 1881.

¶Hirshberg and F. Krause.—"Zur Pathologie der Ansteckende Augenkrankheiten." Centralblatt f. pract. Augenheilkunde.

‖Neisser—"Die Mikrokokkus der Gonorrhœa," Deutsche Med Wochenschrift, Mai 1882, No. 20.

*Dr. F. Krause.—"Der Mikrokokkus Blenorrhœa Neonatorum." Centralblatt f. pract. Augenheilkunde, Mai 1882.

cultivated the cocci obtained from the blenorrhœal secretion, using for his culture fluid sterilized blood serum from sheep, kept at blood temperature. The material used for the culture was taken from the eyes of twelve children affected with blenorrhœal ophthalmia, altogether from twenty-three eyes, and in all of these, after first determining the presence of the characteristic micrococci, pure cultures were made. K. described very fully the manner of growth of these micrococci; and, according to him, their growth is slow and spreads over the gelatine in a thin yellowish soft membrane. Inoculations with the cultivated material, as well as with the fresh blenorrhœal secretion, on the cornea, in the conjunctival sac, and the urethra of grown rabbits, also on the cornea and conjunctiva of young cats, pigeons, mice, etc , all gave negative results, as did also subcutaneous inoculations of rabbits and mice. But in the case of four new-born rabbits, successful results were obtained by inoculations on the conjunctiva of material from the pure culture.

Königstein * has made frequent inoculation experiments with the secretions of blenorrhœa neonatorum. This was smeared into the eyes of rabbits and dogs; and in some cases, after so doing, the eye was sewn up. Here all results were negative, even those made on puppies which were still sucking. In speaking of the microscopic examination of the secretions, Königstein confirms Neisser's discovery, but does not agree with him in considering the diplococci as characteristic of a gonorrhœal inflammation of a mucous membrane. He seems to come to this conclusion because his inoculations on animals were not successful.

In Sept. 1882, Bockhart* published his experiment in inoculating the gonococci on the sound human urethral mucous membrane. His description leaves nothing to be desired in point of clearness. The subject of the experiment was a forty-six-year-old paralytic, completely anæsthetic, whose death was expected daily. The material used for infection consisted of gonococci grown in flesh infusion gelatin, through four generations.

The urethra of the individual experimented on was previously perfectly sound. Forty-eight hours after injection there appeared at the meatus urinarius a slight redness, and on pressure a small quantity of mucous secretion could be obtained. The symptoms increased, and on the sixth day a typical gonorrhœa was found, which increased in severity up to the twelfth day, when the man died. During the whole time the characteristic gonococci were found in the abundant secretions. On post-mortem examination the urethra was found in a state of acute inflammation.

From these experiments, and particularly from the one last quoted, the causal connection between the characteristic micrococci, or *gonococci* as they are called, and gonorrhœal inflammations seems established. In all inoculation experiments with these bacteria we have to contend with the same difficulty that is found in the case of lepra and others diseases; that is, the almost impossibility of transfering them in any way to the lower animals; and, we have not yet reached that point of civilization, when the law would turn over to pathologists, for experimental purposes, the organs of condemned criminals. To assume in all cases that an organism cannot be held as a cause of a disease, because it will not produce a similar

* Kœnigstein.—"Zur Prophylaxis der Blen. Neonatorum." Vortrag gehalten in d. k. k. gesellsch. d Aerzte in Wien.

* Bockhart.—"Beitrag zur Aetiologie und Pathologie des Harnrœhrestrippers." Sitzungs Ber. d. Wurz., Phys. und Med. Gesellschaft, Sept. 1882.

disease in another species, were just as logical as to say that seed were inert, because, when thrown into the street or upon a rock, they would not germinate.

Ogden,* however, has described similar forms of micrococci in pus coming from other sources, and depicts in pus of abscesses taken from various parts of the body forms agreeing almost exactly with the gonococci of Neisser.

It was with the object of satisfying myself, as to the correctness of Neisser's views, that I undertook the examination of a large number of cases of purulent secretion taken from all possible places, and occuring in a number of different pathological conditions, as well as the investigation of a large number of gonorrhœal cases.

The method used for the microscopical examination was that recommended by Koch and Ehrlich, and is extremely simple:—The secretion is spread out evenly, and in a thin layer, on a cover slip. This being best effected by placing on one cover-slip a drop of the secretion to be examined, and covering it with another slip. The fluid will then spread out and fill up all the space between the two By then drawing one from the other (not pulling them apart) a thin layer not more than one cell deep is obtained on each. Then, in order to render the albumen insoluble and prevent a too diffuse staining of the specimen, the cover-slip is heated up to about 110° C. (230° F.). The desired point of heat is readily reached by drawing the slip, with the side to be examined uppermost, through the flame of a Bunsen burner or an alcohol lamp, two or three times. The albumen may also be rendered insoluble and a good staining produced by other methods; such, for instance, as immersing the cover-slip in absolute alcohol for several days or weeks; but the method described will be found the simpler and will give in the main better results.

For staining the specimen a two per cent. aqueous sol. of methylen blue was found most desirable. The cover-slip, having been prepared by the method described, a few drops of the staining fluid was poured upon it. This was allowed to remain for about ten minutes. The slip was then held in a stream of running water, and, after being allowed to dry, was mounted in the usual manner in balsam.

This method is the only way in which one can hope to be able to make a positive diagnosis as to the presence of bacteria in albuminous fluid. Preparations of gonorrhœal pus made in this way are extremely beautiful. The dim outlines of the pus cells can be seen; their nuclei are slightly stained, and in some of the cells the gonococci will be found. These are present in variable numbers. In some cases they are so abundant, that in one field of the microscope, several cells containing them will be seen; at other times, a long search is necessary before they can be found. They are always most abundant in the early stages of the disease, when there is a thick creamy discharge. Their appearance is so characteristic that when once seen they are not readily mistaken for anything else. Rarely will other forms than these be found in the gonorrhœa of the male. In the female, on the other hand, there will be found along with these characteristic forms other forms of the innumerable species of bacteria which seem to have their favorite abode in the vagina.

By the kindness of Prof. Tiffany, I was permitted to carry on my investigations in the out-door department of surgery of the University Hospital.

In the course of these investigations I have examined the secretions of *sixty-seven* cases of gonorrhœa in males

* Langenbeck's Arch. f. Chirurgie.

with durations varying from two days up to nine months, *and in none of these save three were the characteristic gonococci missed.* In two of the cases where they were not found, one of six months and the other of two months duration, the secretion was extremely scant, and the cases had been treated vigorously; and in the remaining case giving a negative result, which was of one week standing, the secretion was likewise very scant, having stopped, to be succeeded by a bubo of an inguinal gland. Of the whole number of cases of gonorrhœa examined, *thirty-three* were from whites and *thirty-four* from negroes; but I could distinguish no difference in regard to the number or character of the gonococci in either case, to explain the asserted fact that the negro suffers less under the gonorrhœal inflammation than does the white man.

The description of the gonococci, as given by Neisser, has been found in the main to be correct; but, I differ with him in thinking that the bacteria lie upon the surface of the pus corpuscles, and am of the opinion that they are contained within the cells themselves. Sometimes they are seen lying free, apart from the cells; in which case, it is most probable that during the manipulation of the specimen some of the cells have been crushed and thus the bacteria have escaped.

There were also investigated with a *positive* result with regard to the gonococci: *one* case of ophthalmia neonatorum, in which the eyes had been destroyed, and *three* cases of purulent ophthalmia in adults, in which the patients were known to have had gonorrhœa; and, further, the urethral secretions of two of them were examined and the *specific bacteria found.* In *two* cases of muco-purulent ophthalmia, one in an aged negress and the other in a child of three years, the gonococci were *absent;* also the secretions of *three* cases giving the histo of *simple urethritis* were investigate and *no* specific micrococci could found; although there were lar numbers of other forms of bacte present.

The history of these cases of sir ple urethritis is as follows:

Case I.—An epileptic, very ana mic, and suffering from spasmod stricture of urethra, for which soun were being passed, who stated that had never had the gonorrhœa, b that for some time past, at interva of every three or four weeks he ha had a slight urethral discharg accompanied with some inflammatio and a burning pain on urination, whic discharge would disappear in a fe days without treatment.

Case II.—A married man, wh was suffering from a thick crea discharge, and who earnestly asserte his freedom from any possible co taminating influence and who w just as confident also that his wi had no specific disease.

Case. III.—A history similar t that of Case II.

The latter cases are of a kin commonly met with in practice and, although the history is n reliable by itself, yet the negative r sults of the microscopical examinatio justify me, I think, in calling the cases of simple urethritis.

In *one* case of gonorrhœal knee in flammation, where the patient ha had a specific vaginitis, but was no free from discharge, the fluid wa withdrawn through a hypodermi needle and examined. It containe only a few rod-shaped bacteria, whic most likely were accidentally presen This negative result corresponds t those obtained by Neisser, Briege and Ehrlich in their investigation o similar cases.

A negative result also attended th investigation of pus from *four* cases o gonorrhœal bubo. In *four* cases o vaginitis, in which the history coul

ot be relied upon to determine the pecificity of the disease, all manner f bacteria were found; but only *one* f these gave the gonococci. While *two* cases with a distinct history of pecific vaginitis the gonococci were ound to be present.

Besides those already mentioned I ave investigated secretions from the llowing sources: *Seven* cases of bscesses from various parts of the ody and arising from various condi ons and causes; *nine* cases from ealthy granulating wounds; *seven*, om chancroid; *three*, from periostitis f finger; *one*, from cellulitis; *one*, om syphilitic bubo; *three*, from mu ous patches; *one*, from superficial yphilitic ulcer; *four*, from sebaceous umors, and *seven*, from ulcers of vari us sorts and conditions. Also, *two* ases each of necrosis of bone, furun e and hydrocele fluid; and *one* case ach from carbuncle, cancer of mouth, cne pustule, lochial discharge, leucor hœal discharge, meibomian cyst, ectal sinus, cystitic urine, abscess over astoid process following otorrhœa, accine pustule, pustule on hand, re ntion cyst of labia majora, fluid om eczema, and fluid from vaccine esicle.

It would be too great a task to give detail any description of the various rms of bacteria which were found in ese cases, it being sufficient here for e to state that in *no* case were the *nococci* found.

Pus obtained from *three* cases of ysipelas was also investigated. One f these cases complicated a gun-shot ound of the leg, and the pus was ken when the disease was at its ight; another, from the sinuses re ulting from a necrosed femur, in hich the pus was taken five days ter the erysipelas had set in; and the third, complicating a wound of e hand, the pus was collected when e disease had nearly disappeared n these three cases, forms of micro cci were found which very closely resembled those found in gonorrhœal secretion; still, on careful examination sufficient points of difference were observed to enable us to make a certain diagnosis between the two. These micrococci were found inside the cells. They differed, however, both in size and shape from the gonococci; not being so large, nor had they the characteristic biscuit-shaped form, nor the arrangement in pairs so characteristic of the former.

In my collection of secretions, I have found very convenient a strongly made box of about four or five inches in length, and in width and depth a little over the dimensions of the square cover slip used. It having slits on either side of its interior into which the cover-slips will fit snugly, each slit being numbered. The numbering of the slits enables one to keep each case distinct with its history, which may be written on a paper numbered correspondingly. Such a box may be carried in the pocket of the bacteria investigator containing clean cover-slips ready for collecting fluids, etc., at a moment's notice, and will prove of inestimable value to the worker. Furthermore, in all investigations upon bacteria it is absolutely necessary to use high powers. The ordinary powers used, such as the "quarter" or the "sixth" will not enable one to do more than recognize the presence of bacteria. To differentiate between the forms of micrococci with less than a "tenth" or a "twelfth" immersion objective is difficult. I have used principally in my investigations an immersion of Reichart, a fifteenth, giving with a low eye-piece a magnifying power of about eight hundred diameters. The homogeneous immersion gives, however, results far better than the others.

Convinced of the parasitic nature of gonorrhœa, I was led to undertake its treatment by means of germicide injections.

This principle of treatment has been used by Cheyne,* who employed a sol. of sulpho-carbolate of zinc as an injection, with also rods of eucalyptus and iodoform, with satisfactory results.

Having learned of the various experiments made in the Gesundheit Amt, in Berlin, of the power of the *corrosive chloride of mercury* as a germicide, even when used in extremely weak solutions, I was led to use it as an injection for gonorrhœa. In so doing the irritative action of the agent must of course, be carefully watched; and, so far, I have found best to employ the following:

℞ Hydrarg. corros. chlor., gr. ¼
Mucilag. acaciæ, ℥i;
Aquæ, ℥iv. M.

To be used as an injection twice a day. The patient being directed, of course, to urinate before injecting and to hold in the injection for several minutes by grasping the meatus urinarius. In a number of cases this treatment has been found to stop the discharge within forty-eight hours; sometimes, after the second injection. When the discharge has ceased it is necessary to still continue the treatment for five to ten days longer, using the same injection, diluted with as much water. This being done the discharge seldom returns. If the injection given causes great irritation of the urethra, as evinced by extreme burning on urination, the injection should be still further diluted; but a slight burning upon the first one or two injections may be disregarded. I have treated some cases with the corros. chloride in combination with astringents and opiates, but these gave apparently no better results; although, without doubt, under certain conditions their addition would prove an advantage.

Up to the present, the results that I have obtained have led me to believe that in this agent we have the best and surest remedy for gonorrhœal inflammation. So far I have been able to treat but a limited number of cases; and a further publication will follow, giving in detail the results obtained in a large series of cases.

In following up this treatment, I have examined repeatedly, in a number of cases, the secretions from time to time; and have found that, under the action of *the corrosive chloride*, the *gonococci* rapidly scatter and finally disappear.

Since these investigations were begun there has come to my notice a paper upon this subject, in which * Leistikow has also reported the treatment; and, as he says, used it with excellent results. It is satisfactory to note that although the investigations carried on by myself have been entirely independent and without knowledge of L's work, yet the results have been about the same in both instances. He, however, uses more dilute solutions. These two sets of investigations were suggested by the same basic scientific principle. There has come to my notice since completing these investigations an article by G. M. Sternberg, M. D., in the *Philadelphia Medical News* of January 20th and 27th. The author denies that the *gonococci* are specific organizations, and avers that they are identical with the ordinary micrococci found in fermenting urine, i. e. *the micrococcus ureæ* of Cohn. He was led to this belief from his inoculation experiments of cultures made in fluid bouillon. It is most probable that his cultures were not pure, for it is now a fact generally conceded that the pure culture of bacteria for any length of time in fluid media is an impossibility. It was the generally present *micrococcus ureæ* that he cultivated and of course his inoculations with this culture were unsuccessful.

* London Lancet, May 12th, 1882.

*Leistikow.—Deusche Med. Zeitung, 1882.

An
Inaugural Dissertation
on
Diphtheria
Submitted to the Examination
of the
Faculty of Physics
of the
University of Maryland
School of Medicine
for the Degree
of
Doctor of Medicine
by
W. Arthur E. McKee
Baltimore Md.
1883.

Diphtheria.

Diphtheria is an acute, specific, contagious disease characterized by the formation of false membrane; and which effects chiefly the mucous membrane of the throat, although it may appear where ever there are mucous surfaces or denuded skin.

History—: It is a disease of antiquity, dating back at least as far as the commencement of the Christian era. It has often been described

by ancient writers, but it was only about fifty years ago that the name now applied to the disease was given to it by M. Breton-neau of Tours. Since the commencement of the six-teenth century numerous epidemics have occurred in America, and also in Europe, and at the present time it is one of the most common and fatal epidem-ic maladies in both continents, while in many localities, especially in large cities it is established as an Endemic.

Age—: It is pre-eminently a disease of childhood, most of the cases occurring between the ages of two and ten years. Under the age of one year the younger the child the less liable it is to the disease, and it rarely occurs prior to the fourth month. It sometimes occurs in the adult.

Incubation—: It is only in exceptional cases that we are enabled to ascertain the incubative period of this disease. The incubation varies in different

cases. It is from two to eight days with perhaps an occasional case outside these limits.

Causes—: It is produced by a specific poison which is communicable by contact, through the atmosphere or by innoculation. One attack does not protect the system from another. This may be a primary or secondary disease. The secondary form occurs as a complication most frequently to those infectious maladies

which are accompanied by inflammation of the fauces and air passages. if they occur in any locality where diphtheria prevails. The inflammation of the mucous membrane accompanying them being transformed into the diphtheritic. Scarlet fever beyond any other disease appears to furnish the conditions which are most favorable for the occurrence of diphtheria, though it seldom happens, that a patient with diphtheria

contracts Scarlet fever. The other infectious diseases, which are most liable to the diphtheritic complication, are measles Variola, whooping Cough, and typhoid fever, the bronchitis of these diseases changing to a pseudo-membranous inflammation. These diseases predispose to it in localities where diphtheria abounds. It is an interesting fact that patients suffering from diphtheria, that the specific inflammation is apt to occur upon such

surfaces that are already the seat of inflammation. All who have seen much of diphtheria are familiar with instances in which a catarrhal inflammation, as from a burn, blister, or from a wound as tracheotomy has become diphtheritic. Under the microscope in the commencement of diphtheria the grayish-white spots which appear upon the inflamed surface consists entirely of bacteria, with epithelium cells and mucous, while

fibrin & pus appear at a later period, as the result of inflammatory reaction. Some writers claim that the bacteria causes the disease; while others claim that the cause is some thing more subtle, yet not discovered, which produces such deleriation of the blood and tissues that they become a midus, in which bacteria are early and rapidly developed. I believe the latter is the true theory and those that believe otherwise

have mistaken an effect for the cause. Diphtheria as believed by some writers is produced by bacteria which coming in contact with the mucous membrane, or the skin deprived of its epidermic covering, adhere to it, and there multiply rapidly, burrow through the tissue, and entering the vessels infect the whole system. If during inspiration they are carried along the current of air, and certain of them lodge upon the fauces,

where they produce the specific inflammation, a larger number must enter the lungs, where we would suppose from the delicate structure of those organs and their proneness to inflammation, they would produce severe results; as for this occurring bronchitis and pulmonary Catarrhs are rare at the commencement of diphtheria, and is not common at any stage of the malady.

Anatomical Characters—
The first change consists
in hyperaemia — a vivid
injection of the mucous
membrane. This redness
may begin in any
part of the throat, but
generally the mucous mem-
brane covering the tonsils.
If there be a pre existing
inflammation of one of
the other mucous mem-
branes, or a portion of the
skin denuded of its epi-
dermis and inflamed, the
specific inflammation is
apt to appear primary

upon these parts, with
or without its simulta-
neous appearance upon
the the faucial surface.
In all except the mild-
est cases, the whole fau-
cial surface is, in the
course of a few hours, in-
volved in the inflam-
matory process. its mucous
membrane is thickened
and softened, and its fol-
licles tumefied, and
actively secreting. The color
of the inflamed surface
is sometimes deep, bright
red, almost like arterial

blood; in other cases it is a dusky red, which indicates a viliated state of the blood. The dusky red hue is more common in secondary than in primary diphtheria. Within a day, and usually within a few hours, from the commencement of the inflammation, the pseudo-membrane begins to form. The deposit is observed usually upon the tonsillar portion, or on the soft palate, or back of fauces. It may start from one or several points. At first

a small slightly raised patch or spot is observed, which gradually becomes firmer, and at the same time thicker and broader from fresh exudations underneath, and it has a grayish or grayish white color. Sometimes different points or patches are observed, which, however speedily extend and, coalesce, so as often to form extensive patches; or even to cover uniformily the entire faucial surface. The pseudo membrane is

closely attached to the mucous surface, which it penetrates, becoming firm, and not easily detached. If you attempt to separate it you will lacerate the engorged capillaries, and leave a bleeding surface. If you detach the pseudo-membrane it readily re-forms again. The patches vary in thickness, and they become thicker by successive layers being formed underneath. The exudation of diphtheria is found to consist of

fibrin forming a delicate interlacing network, epithelium cells more or less altered by the inflammatory process, leucocytes, nuclei, mucous, and amorphous matter. In the throat the pseudo-membrane penetrates the entire mucous membrane, so that no line of demarcation between them can be seen with the microscope. As the deposit increases in thickness it acquires a yellowish or dirty gray color. Sometimes it has a

reddish or brown hue from admixture with blood. The pseudo membrane is sometimes soft and pulpy; often it is firm almost leather-like, and elastic, and can be detached in a single layer. In the course of three or four days, sometimes longer, and sometimes shorter decomposition commences by which the pseudo-membrane becomes loosened from its attachment to the mucous membrane. The pseudo membrane that was first

formed becomes softer than the more recent production. When this occurs, the color of the exudation changes from a reddish or a gray-white to a dirty brown. It leaves the subjacent mucous membrane, either smooth and intact, or ulcerated.

Symptoms—: Diphtheria presents in different cases, such differences as regards general and local symptoms, the latter incident especially to the localizations of the diphtheritic effection, that some writers have instituted several varieties of the disease. Without adopting formally any of these, it will suffice to indicate the important diversities in connection with the symptomatology. A marked point of difference relates to the development

of the disease. The attack is sometimes abrupt, commencing with a chill more or less pronounced, followed by considerable or marked pyrexia; or the disease may begin with symptoms denoting great prostration. But not infrequently the development is gradual and insidious, the patient complaining of indefinite ailments, and the characteristic effection of the throat being discovered on inspection when there were few or no local symptoms pointing to

the existence of the disease.
After the development of
the disease, the symptoms
are naturally divided into
general and local, the
latter being referable es-
pecially to the parts af-
fected with the diphther-
itic process. The effection
of the fauces is rarely ac-
companied by notable pain
or soreness, and hence a
liability to overlook its
existence. The tongue is
coated; Cervical glands,
tonsils and fauces are
swollen. The breath un

most cases is fetid. The extension of the pseudo membrane over more or less of the buccal cavity. The desire for food is diminished or lost, and if lost it characterizes many of the gravest cases. Vomiting is a frequent, and in some cases, a prominent symptom. Diarrhoea is not uncommon, and is a symptom of bad sign. The disease may extend to the larynx, when breathing becomes difficult and lips and nails become

blue from impaired circulation and deficient aeriation. Albuminuria is a frequent symptom. The urine contains a larger amount of urea than in health, a fact showing an increased waste of the tissues. In the majority of cases the mind is unaffected. The fever which ushers in Diphtheria and causes a rise of temperature of 102° or 103°, or even 104°, after the second or third day abates, and there is scarcely more than

normal temperature throughout the disease. The diphtheritic poison does not therefore, like that of scarlet fever, exhibit any marked tendency to increase the the animal heat. Even in profound and fatal blood-poisoning in this disease the thermometer shows the normal, or scarcely more than normal temperature.

Diagnosis—: The formation of the pseudo membrane is pathognomonic. Some physicians are

accustomed, during an epidemic, to consider cases of follicular pharyngitis as cases of diphtheria. Such mistakes should always be guarded against, as they give erroneous conclusions respecting the effect of treatment. In follicular pharyngitis is attended with the formation of round white masses in the site of the follicles, usually over the tonsils only. These masses do not occur in patches, like those of diphtheria,

except when two or three are in close proximity and unite, but at the same time a sufficient number are discrete to establish the diagnosis. The White masses consists of the inspissated secretion of the follicles mixed with epithelium cells. This disease involves no danger and is quickly cured, just the opposite to that of diphtheria. From Scarlet fever, diphtheria is distinguished by the absence

of the eruption, and of the peculiar punctated or brick-dust like flush of the throat, and the strawberry tongue. That scarlet fever predisposes to diphtheria as a subsequent attack is a well established fact. From membranous Croup, though possible in typical cases, in localities where diphtheria is not endemic or epidemic, is difficult if not impossible at the bedside in localities where diphtheria

prevails, especially when there is little or no exudation upon the fauces. Some writers say that the commencement of the pseudo-membranous deposit in diphtheria is about the tonsils and pharynx; while in croup it is in the trachea or larynx. That of diphtheria rarely extends, in any case, below the larynx; while that of croup, not unfrequently even extends into the bronchial tubes. There is no albuminuria in

croup, and the sequela of paralysis never attends recovery from it. The general symptoms of croup are, as much as in any other inflammation dependent upon the local infection; while diphtheria is a constitutional disorder, usually epidemic, in which the local symptoms are secondary.

Prognosis—: No infectious disease presents greater differences in type or severity. The disease is always dangerous

The prognosis is much worse in children than adults. Mild cases may become severe; therefore guard against too hasty a prognosis. The chief signs of danger are; implications of the air-passages, with consequent interference with respiration, as well as the development of pulmonary complications. Septic blood poisoning, produced by absorption from the under surface of the decomposing pseudo-membrane.

Sudden failure of the hearts action either from the anaemia, and general feebleness, from granulo-fatty degeneration of the muscular fibres of the heart, which is liable to occur in all diseases of a malignant type, or from ante-mortem clot. Among the other symptoms which render the prognosis unfavorable are, repugnance, slow and irregular pulse, free discharge from the nostrils, or occlusion of them by inflammatory

thickening, and exudation, repeated vomiting, diarrhea, very rapid and feeble cardiac action, presence of albumen, or casts in urine particular if they are abundant, scarcity of urine. According to the mildness or severity of the disease will the length of its duration be. Generally it lasts from five to fourteen days, with occasional cases outside these limits. Convalescence may require a month of rest.

Sequelae: Paralysis of the muscles of the pharynx, and upper part of the larynx, are the ones most frequently effected. It usually begin during convalescence in the second or third week after the abatement of the inflammatory symptoms, or it may appear earlier or later. The symptoms of it are, a nasal tone of voice, some difficulty in swallowing, and the regurgitation of liquids through the nose. On inspection the

palate is seen to hang flaccid and motionless like a curtain, and no movement is produced by irritation, the sensibility being absent. The state of the muscles at the entrance of the larynx, causes guttural respiration, or snoring in certain cases, which is especially marked during sleep. In severe cases the difficulty of swallowing may endanger suffocation from the lodgment of food in the larynx. In some cases there is

only faucial paralysis, but in many the loss of muscular power occurs in other parts also. Whenever it occurs elsewhere, the faucial muscles are nearly always involved at the same time. Diphtheritic paralysis may effect the motor-muscles of the eye, causing strabismus; the muscles of one side, causing hemiplegia; of the legs, causing paraplegia; or of an arm on one side and leg on the opposite. It does not com-

mence simultaneously in the various muscles which are effected, but in succession, those first effected being for the most part the muscles of the pharynx. There is often not a total loss of sensation or of motion in the paralyzed part, but more or less numbness with difficulty rather than impossibility of motion. A majority of those effected with paralysis recover, although few regain the complete use of their muscles in less than

one month, and many do not till between two and four months. Defect of vision is an occasional result of diphtheria; some have presbyopia; others myopia; some see double; some are amaurotic; while in others one pupil is more dilated than the other, or both pupils are dilated, and feebly sensative to light. This impairment or perversion of vision gradually disappears as the vigor of the system returns. That diphtheritic virus causes paralysis by

some special action is evident, for there is no other infectious disease which is attended and followed by paralysis as diphtheria. The most plausible theory for this is, that the peripheral nerves in paralyzed parts have undergone degenerative changes, so that under the nerve lemma, we observe there is more or less granular matter, in place of the normal nerve tissue.

"Treatment": Although diphtheria has been one of the most common of the

severe infectious maladies in this country during the last twenty-five years, physicians are far from agreeing in reference to the proper mode of treatment. This difference of opinion respecting the therapeutic requirements is due in part to difference in the type of the malady in different localities and epidemics, in part to difference in diagnosis, so that one considers a case to be diphtheritic, which another regards as a non-

specific inflammation,
but more to the fact that
different theories are
held respecting the cause
and nature of diphtheria.
Scarcely any other disease
presents such a diversity
in type as diphtheria,
from cases, so mild that
nearly all recover, whatever
measures be employed, to
those so severe that a large
proportion die under the
best possible treatment.
The treatment in this
will be general and
local. The general treat-

ment should consist of food, stimulants, tonics &c. The most nutritious and easily digested food, and the preservation of the appetite are very important, for the safety of the patient requires that he should retain, so far as possible, his flesh and strength. Beef tea, or the expressed juice of meat, milk with farinaceous food, &c., should be administered every hour or three hours. As regards stimulants the same

rule holds good in diphtheria as in other acute infectious maladies, that while mild cases do well without alcoholic stimulants, they are required in cases of a severe type, and should be administered in large and frequent doses, whenever pallor and loss of appetite, or of strength and flesh, indicate danger from the diphtheritic or septic infection. I believe that if alcohol be given early and frequent

in grave cases, as, for example one teaspoonful every half-hour of brandy or Bourbon whiskey, it does have a tendency to render the disease more tractable, and that it therefore affords important aid in saving the patient's life. Intoxication is very seldom ever produced in this disease by frequent and large doses of the alcoholic compounds is due partly to the quick elimination of such substances from

the system, and in part, probably, to the nature of diphtheria. In fulfilling the indications for sustaining treatment, the vegetable tonic, have long been used, especially cinchona and its alkaloid quinia. The last named for its tonic effect is given in doses of one or two grains every four hours. As an antipyretic quinia is to be preferred to any other medicine in diphtheria, as it also acts as a tonic, and does not impair

digestion. Iron should be given for its effect upon the red corpuscles, which are the carriers of oxygen, and thereby it increases the functional activity of organs, and improves the general nutrition. It is therefore a very important agent in this disease. The preparation of iron most commonly used, is the tincture of the chloride of iron. It should be given in large and frequent doses, as five drops hourly, to a child of three to five years.

We may combine with the iron the chlorate of potassium which exerts a decidedly curative action on buccal and pharyngeal inflammations, which is a solvent of pseudo-membranes, and which after it enters the system, being largely eliminated from the salivary glands, continues after the dose is taken to have effect on the inflamed surface of the buccal cavity and fauces. Some writers recommend the bichloride of mercury

as they think it has a tendency to counteract to some extent the morbid process of the disease.
The local treatment is for to reduce the inflammation of the mucous surfaces, and destroy the diphtheritic poison, and contagious properties in the pseudo-membrane, and to destroy the septic poison, and prevent its absorption, if any form. It has been found by experiment that Chlorate of potassium, pepsin, lactic acid and lime.

are solvents of pseudo-membranes. It was then found that lime-water dissolved it in a shorter time than any of the others. It is best in using lime-water to add one or two grains of carbolic acid to the ounce of lime water, for its antiseptic property. It is best to apply this solution by the hand-atomizer with double bulb, as the child tolerates better the steady spray. This should be employed every hour or two. Any

of the other solvents may be used, but the last named is mostly used as it has been found to be the best. There are various other remedies used by some physicians, and also various modes of applying. But I think better results are obtained by following the above treatment, and also the mode of application.
Emetic are sometimes used, to effect the mechanical displacement of the pseudo-membrane. Those

acting promptly and producing no after-depression are the most suitable for this purpose, as alum, subsulphate of mercury, sulphate zinc, ipecac &c. If there be a tendency to diarrhoea stop it at once, by opium and astringents. Vomiting is to be relieved by bismuth, creasote, hydrocyanic acid, &c. Opium, the bromides, or the hydrate of Chloral, are often required when there is restlessness and vigidance. If there is obstruction to the larynx,

tracheotomy should be performed, and do not wait to long to do it. You may save the patients life, so always give him the chance. If the patient cannot eat, give enema of two ounces of nutritious substances, with compress over anus so as to be retained. Or you may give nutriment by tube into the stomach.

Prophylaxis:- The occurrence of diphtheria in a family necessitates the prompt removal of

other children of the family either out of the house, or to a distant part of it, and the disinfection of the room, and the handkerchiefs, and other linen, and all the dejections, expectorated matters, and utensils used about the patient should be immediately disinfected. The diphtheritic, like the scarlatinous, virus may remain for weeks or months in a locality or apartment, therefore after patient has recovered, or died,

the clothing and linens used during the illness should be destroyed; and the furniture and floor should be washed with chloride of zinc solution, papering removed and destroyed, carpets disinfected by heat, &c. After this thorough disinfection has been employed, the children should not be admitted into the room, until a considerable period has elapsed.

A
Thesis
By
W. G. White
S.C.
Subject
Typhoid Fever.

Feb-19th 1883.

Typhoid Fever is one of the continued and self limited fevers. Probably if at all contagious. Characterized by peculiar rose colored spots on the abdomen with tendency to diarrhoea, stupor and low delirium. And also specific lesions of the small intestines as thickening and ulcerations of Peyers Patches and softening of the mesenteric glands and an enlargement of the spleen.

Causation of this disease is very obscure, notwithstanding its cause has been diligently sought after by many of the most careful

investigators for medical truths.
Some claim that Typhoid fever owes its origin to some peculiar poison or germ, but just what this poison or germ is we cannot clearly explain, only that we know it is in some way associated with the decomposition of animal matter.
The mere decomposition of animal matter will not of itself originate the disease, it is absolutely necessary that the Typhoid germ be present which find in the decomposing material a suitable soil for its growth and development.
It is now the generally accepted opinion that the poison of the

phoid fever is to be found in the excreta of patients suffering from it. But it is necessary for the excreta to undergo some change before they develop any activity, since so long as they are kept in fresh state by cool or disinfectants they show no activity whatever but let them be thrown into a privy reservoir upon the ground and they readily manifest poisonous activity which may last for quite a long while and the excreta of a single individual may be sufficient to infect an entire community. Persons living in foul atmos

phere imbibing impure air, and those undergoing fatigue, anxiety Etc are more susceptiable to the Materies morbi of this disease than the robust and healthy who enjoy good hygienic regulations. Its poisonous germs reaches the system through the air, water and food, but how long it remains dormant in the system after having been conveyed there by the above means, is not at all definitely known, altho' the average incubation stage is estimated at three weeks. Susceptibilities to the poisonous influences of Typhoid fever are modified by various circumstances

such as the season of the year, the age and sex of the patients. In our own country it prevails mostly in Fall and Winter months and in some parts of the U.S. it prevails to such an extent at times of above mentioned season, until it is known as Autumnal Fever. Infancy and old age are seldom subjected to its influence, it seems to attack by preference persons between the age of 15 and 35 years of age.

Males are more frequently affected with this disease than females, and the Negro and Mulatto are not free from it

influences, especially when they do not enjoy the benefit of good hygienic regulations.

Symptoms - Usually we have a prodromic period which ushers in a case of Typhoid and this period is more gradual than any of the other fevers.

The patient feels languid all the time and tires on the least exertion, has headache (at beginning rather acute) and the very mention of food is repugnant to the patient, Epistaxis and a bronchial cough are almost pathognomonic symptoms of the disease

The above symptoms grow more aggravated, the tongue becomes heavily coated, the mind dull and stupid and the patient's sleep is disturbed by unpleasant dreams. Chilliness may be felt at different times for a few days and finally the fever sets in and the patient by this time is exhausted and betakes himself to bed, such are the symptoms of an ordinary case of Typhoid fever.

There are recorded cases where we have no prodromic stage at all, persons of apparent good health are suddenly seized by chilliness followed

with fever and its accompany-
ing train of symptoms which
rapidly develop into Typhoid fever.
It is generally claimed that the
fever originates with the first
sense of chilliness and eleva-
tion of temperature.
During the prodromic period
there is slight tendency to diar-
hoea which is just reversed
during the first week of actual
fever, but this constipation is
easily remedied by a very
mild laxative. At first the
tongue is enlarged and its
margins are indented by the
teeth, but soon it becomes smaller
than normal, its coating pure

off with Epithelium, leaving a dry and glazed surface which is sometimes tremulous. When diarrhoea exists about last of 1st or beginning of 2nd wk, the stools are of thin brownish faeces, of a strong odor, they tend to increase daily in number also change in character, so that towards end of 2nd wk they have assumed the yellow ochre color - the well known pea soup appearance. When the faeces are allowed to stand awhile, they separate into two strata, the upper layer consists of liquids as salts ects, while lower layer is of same ingredients with the ad-

dition of a quantity of yellow material, made up of fat, pigment etc, there's great interest manifested in the microscopical examination of these faeces since it is supposed that the Typhoid germ is contained within them, but thus far no definite results have been attained from the examination of the faeces, since we find the same brownish micrococci in benign excreta as those found in the excreta from Typhoid fever patients.

About end of 1st wk we have considerable tenderness on pressure over the abdomen also

Gurgling may be heard in the
right ileo-cæcal region, at this
time we also have distinct
splenic enlargement, usually
have some throat troubles as
enlargement of the tonsils and
follicles of the pharynx. These
troubles take place coincidently
with the development of the
intestinal glandular append-
ages. In some patients we may
have dry and moist rales over
the dependent portions of the
lungs. It is usually at beginning
of 2nd wk that the nervous
system becomes involved, then
instead of the patient complain-
ing of pain and discomfort

he manifest indifference to
all surrounding objects and lies
in a dozing state, but is readily
aroused and retains his senses
when spoken to by friends or the Dr.
Does not sleep well at night but
when we inquire as to how he feels
he invariably replies that he
feels very well. As the case
progresses the mental faculties
of patient become involved,
they lie muttering to themselves
otherwise they are usually very
quiet, After the delirium may
be more active, patient becomes
quite wild and furious, get-
ting out of bed and resisting
all attempts of Kindness from

attendants, this state of affairs coincides with a very high temperature, rapid pulse and other evidences of extreme illness, fortunately such cases are quite rare, as in majority of the cases the delirium is of mild form and patient is constantly picking at imaginary objects on the bed and we also have a trembling of some of his muscles which is noticed even in his tongue which when protruded is not again drawn into the mouth unless we force it back or assist the patient to withdraw it.

During a case of Typhoid fever the

urine is scanty and high colored, rich in urea and poor in Chlorides and in many cases Albumen may be found in it. It is about last of 2nd wk that the characteristic lenticular rose colored spots make their appearance on the abdomen, they disappear on pressure, but quickly reappear when the pressure is removed. These spots vary much in number and remain only a few days. In severe cases the stupor increases to such an extent that the patient can scarcely be aroused. And by middle of 8th wk. the symptoms are fully developed and the patient is so exhausted that a

cannot retain his position in bed and then he may pass his urine and faeces involuntarially. Some of the late symptoms is the dicrotus pulse, retention of urine and hemorrhage from the bowels. Where cases are very prolonged we have patients afflicted with bed sores and even during stage of convalescence we may have abscesses formed in various portions of the body.

Temperature, in this disease has been a special study by many practitioners, and its rise from the normal heat (98.75°) of the body, is found to be very gradual reaching 104.5° on the 5th or 6th day

from its inception. The gradual rise of heat is one of the special diagnostic points in typhoid fever. The marked tendency to morning remissions and evening exacerbations of from 1° - 1.5° is almost pathognomonic of the disease, and this too is usually a favorable symptom.

Towards end of 3rd wk the fever should begin to remit and by the time of the 4th wk of the fever it should be of the intermittent type, the daily exacerbations decreasing until the normal temperature is reached. Therefore, claim that typhoid fever is a continued fever only during the 2nd week.

At or during 4th wk when the normal heat has been reached, then the patient becomes fully aroused and instead of stupor and indifference, he is full of complaints. His eyes brighten and his face altho' emaciated again has some expression in it. Rest and sleep are more comforting to the patient, the tongue and gums clean up and appetite returns. The flatulence and distension of the abdomen subside and the spleen assumes its normal size - the urine too again becomes more abundant and limpid and everything tends towards recovery and now the

patient gets well if he takes proper care of himself and pays attention to his diet. But in this as in almost all other long exhausting diseases he is liable to have some complications. Pneumonia of the hypostatic form is most frequent complication of typhoid fever, may also involve the brain involved and frequently peritonitis following the perforation of the ileum and also other complications.

After decided convalescence a typhoid patient, we may have a relapse with all the accompanying symptoms of the disease, but usually these secondary attacks do not last so long. Neither does

death often follow from the relapse, unless perforation of the bowels take place, but on account of the great exhaustion of the patients we need to be exceedingly cautious and careful of them during the relapsing stage.

The original fever generally runs its course in from 2-6 weeks and is more mild in younger subjects when the temperature rarely exceeds 103°. Perforation of the bowel may take place at any time from 1st until several months after convalescence is well established; has been known to happen 7 months after an attack

But usually if it occurs at all it is between 3rd and 5th week and the ileum is part most frequently perforated.

Typhoid fever usually terminates in prolonged debility and the mental faculties are sometimes weakened and enfeebled for weeks and even months.

Pathology of this disease is quite characteristic and the lesions are distinct and the parts characteristically affected are the solitary and Peyers glands. These structures may be involved throughout portions of small and large intestines - but usually the process is limited to the

Ileum and Caecum and the
Glands are always effected
which are situated nearest the
Ileo caecal valve.
The primary pathological change
consists of an hyperaemia and cel-
lular infiltration of the glands.
The cells increase in size and
form multinucleated cells
Peyers patches and the solitary
glands enlarge and stand above
the surface of the intestines.
They are of peculiar color and
often of a brain like consistence.
The surrounding mucous mem-
brane is very vascular and is
the seat of an acute catarrhal
process. This catarrh usually

precedes the swelling of the glands.
The surrounding tissues are rapidly effected by the cellular infiltration of the involved glands.
The process gradually passes into a 2nd stage. Viz the death and disintegration of the newly formed tissue, this stage may terminate in various ways. as the enlarged glands may subside, the new elements become disintegrated and absorbed and the glands thus undergo a gradual process of involution. But the most usual termination of this secondary stage is the separation of the dead tissues as a

slough and the formation of what is known as the Typhoid slough. This process of sloughing and ulceration may take place uniformly throughout the entire gland, but generally it begins in different portions of the patches and small irregular losses of substances result and this process may extend, a large ulcer is formed. This sloughing usually involves only the Epithelial and submucous tissue of the gut and the base of the ulcer is mostly of the muscular coat of the intestine, the edges of which consist of well defined fringes of congested mucous

membrana. Whenever this slough extends through the muscular coat or layer to the superitoneal tissue, it is extremely liable to cause perforation, followed by peritonitis and death of the patient. The third stage of the process is that of cicitrization. This takes place by the resolution of the peripheral infiltration, the approximation and union of the undermined edges with the floor of the ulcer and the gradual formation from the margin of an epithelial covering. The process always take place by granulation and the cicatrix thus formed is slightly depressed and

less vascular than the surround-
ing mucous membrane
The changes in mesenteric gland
is secondary to that in the intestines.
They too undergo cellular infiltra
tion. Become enlarged, soft and vas-
cular and like glands of the in-
testines undergo a gradual
process of absorption, but in
rare cases the capsule of these
glands rupture and the softened
matter escapes into the peritone-
al cavity, setting up a virulent
peritonitis. The ileum too is in-
volved in this disease it becomes
very much enlarged and also
congested when fever is long
continued. In typhoid cases

of persistent elevation of temperature, the liver, kidneys, muscular tissues of the heart - the nervous system and muscular system of animal life in general become involved, but fortunately such severe cases are quite rare -

Diagnosis - Typhoid is distinguished from Typhus, in that the prodromic stage is more gradual - Rigors and delirium come on later and is not so pronounced in Typhoid as in Typhus. The countenance in Typhus is of a dirty, deadly red, while in Typhoid it is of a purplish red, also in Typhoid

We have the pecular lenticular rose colored spots over abdomen and characteristic lesions in small intestines none of the above signs are found in typhus fever.
Typhoid is distinguished from remittent by the absence of vomiting and of yellowness of the skin.
Prognosis is dependent entirely on severity of the onset of the case, the constitution and surrounding hygienic influence of the patient also the complications which may arise. Perforation is always looked upon as fatal

sign of the patient
Treatment in Typhoid fever is
by various methods - as depletions and stimulants; Anti
Zymotics and anti mycotics.
At one time bleeding was the
great remedy with all patients,
but now a days it has fallen
into general disuse - altho' our
worthy Prof of Practice, believes
in using dry cupping in
strong and plethoric subjects
and his plan of treatment
in this trouble is altogether on
the expectant method - that is
treating symptoms as they
arise and by this method his
results have been very satisfactory

ry both to himself & his patients.
In beginning of the disease, if stomach is overloaded, we should give an emetic and also a light purge.
Prof Nehemeir (German) is a strong advocate in the use of mercury during first stage, and Barthlow says that if statistics can be relied upon, there is no doubt but that Calomel in large doses during 1st week favorably modifies the disease.
Veratrum viride in doses gtt ℔ - ℔ is good to reduce pulse.
Hypophosphites and sulphites are quite beneficial. Dovers powders or Bromides Potass and Chloral

combined are useful to produce
sleep. When the tongue becomes
dry, red and glazed like, then is
typanitis and diorrhoea, the
use of turbentine is indicated
and is best given in an emul-
sion in doses of gtts x every 2 hrs
In diorrhoea of this disease we
use the Chalk mixture, Opium
and subnitrate of Bismuth,
but we should not check the dior-
rhoea too suddenly, as the fœ-
tid matter in the bowels are
poisonous and need to be
gotten rid off. So the diorrhoea
is to a certain extent benefi-
cial. Stimulants are
called for in almost every

case, but we should be very guarded in giving them and do so only in proper doses. We watch temperature and find that Quinine is the best of all Antipyretics, but requires to be given in large doses to do good. May combine with it digitalis when the pyrexia is of itself inadequate.

Some prefer the use of cold baths and packs to reduce the abdominal temperature.

Whenever hemorrhage occurs the intestinal movements must be assisted by the use of Opium and the flow

If blood controlled by use of
Ergotine hypodermatically and
ice applied to the abdomen.
Tannin, alum and a solution
of iron may be given inter-
nally to restrain the hemorrhage.
If perforation does occur-
Morphia hypodermatically is
our one remedy and absolute
rest must be observed by the
patient in order to enter-
tain the faintest hope of his
recovery.
While in the University Hospital
we saw several very severe cases
of Typhoid fever treated entirely
by "Expectant Plan and they
all recovered. So we are willing

to recommend and rely upon the Expectant Treatment in this disease, believing, as does our worthy Prof of Practice, that "such treatment is the best we can make use of against the exhausting influences of Typhoid Fever

To the Faculty of Medicine
University of Marylands.
Gentlemen.

In presenting myself as a candidate for the degree of "Doctor of Medicine". I beg leave to submit the accompanying paper, under the title of "Fever". as my thesis.

With great respect
George R Graham
Marylands

Baltimore.
February. 1883

Fever. Pyrexia. Febris.

There is perhaps, in the study of pathological conditions of the human body, no subject of greater interest than that which is presented as the title of this thesis.

The definition of fever includes; "Undue elevation of temperature"; the immediate or proximate causes of that elevation; and the consequences which these conditions entail.

In order to discuss, intelligently, the subject of fever, it is necessary to first revert to the normal temperature of the human body, and, secondly, to the sources of heat, and the conditions governing its

evolution.

The normal temperature of the body, in the adult, ranges from 98.4° to 99.5°, and in the infant it runs somewhat higher.

There is a diurnal variation in the temperature, of from 1° to 3°.

The lowest temperature occurs in the morning hours, previous to 7 O'clock, a.m. and the highest, in the evening, from 2 to 7 O'clock, p.m.

This rule is followed, in all abnormal elevations of temperature, except in the case of certain diseases in which the fever is more transient.

The ingestion of food, causes

a slight elevation of temperature. So also will muscular exertion.

The heat of the body is evolved by the oxidation or consumption of its elements. This consumption is compensated for by the food which we are obliged to take daily.

If all the organs of assimilation are in a healthy condition, the body experiences no loss from the daily consumption of elements.

But if these organs are not performing their functions properly, or if, from any cause, we are not able to supply it with the necessary amount of food, the body

will very soon, by its emaciation, give evidence of the consumption of its constituent parts.

Heat is necessary to the maintainence of the functions of the body.

Every act; every thought; every muscular contraction, is produced at the expense of the heat developed by the molecular changes which are constantly going on, in the System.

These molecular changes are directly under the control of the nervous system, and any derangement of this controlling power, is apt to be

manifested, either, in a decrease in the amount of heat evolved, below that nessecessary for the maintenence of health; or, what is more common, an abnormal increase of heat-production. This increase of heat is called fever.

Fever heat or abnormal temperature ranges from the normal temperature to 112°.

If it lie between 101 and 103 it is called moderate; if between 103 and 105, it is called high; and if above 105 it is excessive and dangerous.

If the temperature reaches

of or 108 it is most apt to be fatal.

Fevers have been divided into two varieties; viz; symptomatic and idiopathic.

Symptomatic fever is that form attending local irritation.

Of such, is the fever of peritonitis, and the so called, surgical fever, following injuries and operations.

Surgical or traumatic fever is sub divided into; sthenic; asthenic; and irritative fever.

Sthenic fever occurs in robust, young and healthy individuals. and is characterized by the

activity of its phenomena.

Asthenic fever is the fever of debilitated persons.

Irritative fevers are those, in which the cerebral symptoms are prominent:

Idiopathic fever or essential fever, arises without any apparent local cause.

This class may be divided into three classes:

Viz: 1st Those attended with distinct paroxysms; intermittents.

2nd Remittent and continued fevers. 3d Fevers complicated with eruptions — exanthematous.

Like symptomatic fever, idiopathic fever may be sthenic, asthenic, or irritative.

All ages are liable to fever, and all climates are liable to produce the exciting causes of fever.

Many fevers are contagious or infectious. In these cases they originate in a specific cause. The contagion of one never producing an attack of another.

In these cases, usually, one attack confers an immunity from another attack of the same disease

Contagious fevers may prevail

Endemically" or localized; or, "Epidemically" or wide spread and of limited duration.

Fever is usually attended by symptoms, which indicate the deep involvement of the nervous system.

There is the, hot, dry skin; pulse and respiration accelerated; gastric, intestinal functions impaired; urine, and other secretions modified; and headache, and muscular pains

The pulse increases about ten beats to each degree of increase in the temperature. Its character is usually, large, hard, and bounding But this is subject to many

modifications

The increase in the rate of respiration, does not bear the same relation, to the rise of temperature, that the pulse rate does. In some cases it is not accelerated at all.

In very high fevers the respirations are rapid, and shallow. notably so in the fever attending "Pneumonia"

Thirst is always present in fever and is often extreme. The appetite is impaired; the mouth dry and clammy and often acquires a bitter taste. The tongue is more or

coated, and in many cases, presents indications, characteristic of the type of the fever, with which we have to contend.

The bowels are usually constipated, but in exceptional forms of fever; typhoid for instance; there is a tendency to diarrhea.

The urine is scanty, high colored, and of high specific gravity.

There is a great increase in the eliminations, urea and other solid elements of the urine, although the sum total of the urine excreted is greatly less than during health.

The proportions of coloring

matter is also largely increased, while the excretion of sodium chloride and other salts is diminished.

The urine of fever is always more acid than healthy urine.

The great increase of altered tissue elements in the urine of fever, indicates the greatly increased consumption going on in the system.

The blood, after a time, undergoes change. Its red corpuscles albumen and alkaline salts are diminished. The patient loses color, he is subject to chilly sensations, even in very warm weather, and his whole appearance indicates

the deficiency in the vitalizing element of his body.

Fever presents three stages: viz; A cold stage: a hot stage: and a sweating stage.

These stages vary in length, in different cases, and at different periods with the same individual. Or the first- or third stage, or both may be absent- altogether.

If fever ends in recovery, it may terminate; 1st by "Crisis", or 2nd by "Lysis".

By crisis, the attack is arrested by a critical discharge; it may be

profuse diarrhea; a copious perspiration; or an abundant secretion of urine loaded with effete matters, by which the system purges itself of its morbid material.

The termination by "lysis" is gradual. The febrile phenomena slowly disappear, and the patient gradually progresses towards recovery.

But fever may terminate in "death"

This is supposed to be due to an influence analagous to "rigor mortis" At post mortem the auricles are found full of blood and the ventricles contracted

and empty.

The classifications of fever are almost as numerous as the various types of fevers themselves.

All the classifications are more or less arbitrary.

That presented by Prof J M. Da Costa in his "Medical Diagnosis" is about as convenient as any.

He presents three classes, viz:

Continued Fevers.

Periodical Fevers.

Eruptive Fevers.

The "continued fevers" are characterized, as their name would imply.

by continued high temperature, with but little or no exacerbations, until the critical period of the attack is passed. Many of the eruptive fevers have this characteristic, but they have other characteristics, which serve to separate them from the "continued fevers", which are as follows.

"Simple continued fevers,

Catarrhal fevers or influenza,

Typhoid fever,

Typhus fever,

The Plague,

Cerebro spinal fever,

Relapsing fevers.

Periodical fevers are characterized

by the distinct periodicity of their phenomena.

Malaria is an important factor in their etiology. All strongly resemble in their symptoms, and also in their secondary lesions; i.e: enlarged spleen and liver, and impoverished blood.

They are distinguished, according to the frequency of the paroxysms, as "quotidian"; "tertian"; and "quartan".

If the paroxysm occurs once in twenty four hours, it is styled, quotidian.

If it occurs once in forty eight hours, it is called "tertian"; and if in seventy two hours, it is known as, "quartan".

The period between the beginning of one paroxysm, and the beginning of another is called the "interval:" and the period between the end of one paroxysm and the beginning of another, is called the "intermission".

The temperature rises with the beginning of the chill, remains stationary during the hot stage, and falls rapidly during the sweating stage.

The periodical fevers are;

Intermittent fevers or ague.

Remittent fevers.

Congestive or pernicious fever.

Yellow Fever.

The "Eruptive" or exanthematous fevers form a group having numerous features in common.

All are characterized by a period of incubation; by a fever, of more or less intensity, preceeding the eruption; by an eruption which a distinct aspect in each disease, and which pursues a definite and well defined course, until it and the febrile malady disappear.

All are prone to occasion serious sequelæ; all are contagious and rarely attack the same person twice.

In the list of "Eruptive"

fevers, are included.

Scarlatina.

Measles.

Rubeola.

Small Pox.

Varicella.

Erysipelas.

Miliaria.

Dengue.

The agents employed in combatting fevers, are very numerous.

Perhaps the oldest of these agents is the application of "cold"

It was employed by "Galen", and has been used in

Europe and this country, very extensively, during the present century.

Among the medical agents are found "Aconite"; Salicylic acid; Veratrum Viride: and a host of others of more or less values; but as an agent which can be relied upon at all times to reduce temperature, and which may be administered to all ages and nearly all conditions, "Quinia", deservedly stands at the head of the list.

Respectfully submitted.
George R. Graham
of Maryland.

Fever

George R Graham
Maryland

Thesis

on

Tuberculosis

Respectfully submitted to the

Dean of the Faculty of the

University of Maryland by

E. Wyley Schinde.

Feb. 13, 1883.

Tuberculosis

Perhaps no subject in medical science has received more attention of late than tuberculosis.

Since the discovery of Koche a new impetus has been given to experimental research and the number of advocates on the one hand and the number of opponents on the other have rapidly multiplied. It may be that this discovery will mark a new era in tuberculosis as did the scientific investigations of Pasteur. While some are ready to accept and adopt whatever is new, the more thoughtful and conservative require the confirmatory evidence

of the leading lights of the profession. Then there are those who not only refuse to accept the bacillus as the cause of tuberculosis, but by their efforts in the laboratory are endeavoring to disprove its specificity in this affection. Among this latter class no one has done more to overthrow the theory of Koche than Dr. H. F. Formad of Phila

That the bacillus is found in the tubercle he admits but that it operates as a causative influence his own experiments fail to substantiate. The mere presence of the organism will prove nothing, because its presence has been demonstrated elsewhere

from which no deleterious effects resulted. Mr Formad in his lecture before the Baltimore Medical and Chirurgical Society, remarked that he found the bacillus in his own sputa which gave him some alarm until he examined the sputa of persons in undoubted health finding the same organisms in the latter it reassured him that the animal was perfectly innocuous.

Most of Kochs experiments were made upon rabbits, often failing when other animals were used for the purpose, unless inoculated in a serous membrane the inflammation of which is peculiarly to produce

tuberculosis. Now the anatomical structure of the rabbit is just that we find in scrofulosis and it has long been known that scrofulous persons are the most susceptible to inflammatory changes, tubercu-losis being lighted up on the slightest provocation. Some even regard the two affections as identical.

Dr. Cormack believes the distinguishing difference between the healthy and scrofulous resides in the connective tissues. In the scrofulous the interstices of the connective tissue are filled with exudative cells, which can not be absorbed, while the perivascular spaces

remain open. If this be true we have scrofulosis, at last reduced to an anatomical basis. This peculiar structure does not constitute a disease but a condition liable to take on inflammation under trivial influences and that inflammation is always tubercular. Hence we readily see why a rabbit should so easily succumb when any irritating substance has been applied or introduced into its system. We need the tubercle, any irritating substance, because other things beside the bacillus have caused tuberculosis. Another fact recently demonstrated

is that inflammations of serous membranes will produce tubercu-losis. In this, we find the explana-tion for those animals, which can be affected, only by introducing the materes morbi, into the eye or ab-domen.

By placing an animal under unfavorable hygienic influences, in damp, dark apartments, with, in sufficient food, it has been found that the disease is much more eas-ily propagated. After awhile the system, undergoes a change, becom-ing identical in structure to that said to be present, in scrofulosis.

Koche passed his bacilli through

successive culture fluid must be obtained the organisms pure and simple. With these he experimented on a large number of animals and Clamms to have met with that success which warrants the promulgation of his theory, at least. Whether his views will be ratified to the satisfaction of the profession must remain for future scientific research, and investigation to reveal. At all events even if his bacillus theory should pass away, as a myth, like the fat cell of Schmidt he will have done a good work, in arousing the medical mind & guided it into a new field of explora-

tion, which, may yield a rich harvest, fraught with lasting benefits to mankind.

With these cursory remarks, on the more recent views of this important disease we will pass to the consideration of it as it now commonly taught.

The first inquiry is, what is meant by Tuberculosis?

Tuberculosis, may be pathologically, defined as a constitutional tendency of the blood, the plasma of which is defective, in organizable capacity; so that, in nutrition, instead of healthy tissue, it forms in one, or very often in many, of

the organs, aborted blastema, which accumulates as a deposit. This deposit is called tubercle; the process, tuberculization. (Hartshorne)
Those, who believe in Kochs theory would define tuberculosis as a disease, which owes its peculiar character to the presence of a vegetable organism known as the bacillus. According to others, as scrofulosis plus bacillus.
Etiology. The most important element in the causation of tuberculosis is inheritance. Not that the disease is transmitted in toto from parent to child, but a peculiar condition of the system

, in other words a diathesis. "The offspring of a tubercular parent, as a rule, does not have tubercle at birth; a tubercular diathesis, at first latent, as in syphilis, manifests itself in a few weeks or months in the formation of tubercle, and in the consequent cough and emaciation."

No period of life is exempt from it except the foetus in utero. Persons with hump back, valvular disease of the heart, and the emphysematous enjoy the greatest immunity. Climate exerts a powerful influence in producing this disease; the two extremes

very almost or quite free while the fickle weather of the temperate zone wrecks many a life through this agency. Tuberculosis may result from unhygienic surroundings in those previously healthy and of healthy parents. It frequently results from residence in dark, damp, unwholesome apartments with insufficient and unnutritious food - in short anything which will reduce the vitality of the body, rendering it less capable to resist the attacks of disease

Tuberculosis complicates often a number of diseases as pleurisy, pneumonia, diabetes Mellitus

&c. In the latter the patient almost invariably dies phthisical.

"According to the views of older writers, which were based upon the teaching of Laennec, phthisis, was regarded, in all cases as a tubercular disease. Tubercle was looked upon, as a specific non inflammatory growth, which was characterized by the caseous degeneration which it invariably underwent and this caseous metamorphosis, was held to be such a distinguishing peculiarity of the growth that all caseous masses came to be regarded as tuberculous, and phthisis in which

caseation plays such a promi-
nent part, was consequently, re-
garded as a tuberculous disease
The various consolidations of the
pulmonary tissue were described
as infiltration or "infiltrated tuber-
cle," and tubercle in some form
was regarded as so essential a
constituent of disease that "phthisis"
and pulmonary tuberculosis came
to be synonymous terms. (Greene)

Various opinions existed upon
this subject which were main-
tained with more or less acrimony,
& this diversity of opinion exist
even at the present. Some of the
more recent pathologists hold

the views of Laennec but little modified.

Is tuberculosis an infectious disease? Thus is another point upon which there is no unanimity of opinion. Dr. Morrell McKenzie in his lecture delivered on laryngeal phthisis, before the students of the Maryland University refunded the idea, speaking with great positiveness of the unsoundness of the doctrine & supported his views with well authenticated statistics. Dr. H. P. Hormad in his lecture delivered before the Baltimore Medical & Surgical Society expressed the same

opinion. Dr. Smith says, "Even physicians of experience, must have remarked the frequency with which tuberculosis occurs in those not predisposed to the disease, but who have been in intimate relations with consumptive patients" This has been commonly regarded as due in no way to infection, but has been thought to be a coincidence, or has been attributed to an influence not fully understood which the emotions or imagination exert in the causation of disease, but recent discoveries concerning the etiology of tuberculosis, afford ground

for the opinion which some of our best authorities in the pathology of tuberculosis, as Waldenburg, Newhold, that, minute particles exhaled or expectorated from the lung may be the medium of infection." The opinion, among the laity and profession, of the infectiousness of tuberculosis is much more prevalent, since the wide dissemination of Koch's theory. And in that direction it is capable of doing more harm than good, by creating unnecessary alarm about what must be regarded, so remote, is the possibility, as practically not existing.

Pathology:- As has been remarked tuberculosis is produced by a deposit of tubercle. A tubercle is a nodular, nonvascular new growth without a tendency to higher organization. It consists essentially of nuclei & large indifferent cells. These cells are imbedded in connective tissue, which may itself be incleated. Its tendency is towards atrophy and softing. Tubercle is rarely local; generally constitutional and then called tuberculosis. There are two varieties of tubercle: the gray or miliary, the only typical tubercle, is semisolid, semitransparent

and granular; the other is the yellow, opaque, caseous tubercle. Tubercle occupies the place of normal tissue, and may modify the surrounding tissue by pressure and by inflammatory processes.

In Children it commonly occurs in the lymphatic glands bones, and skin; in the adult it usually affects the apices of the lungs. When it take place in the brain its common seat is at the base in the pia mater.

Diagnosis. In the adult the diagnosis can generally be made with exactness by the use of the

methods of exploration, palpation, auscultation, and percussion. In incipient pulmonary tuberculosis of children the physical signs are wanting, or are so obscure, as not to be readily recognized. This is due to the small size or the dissemination of the tubercle. Tuberculosis of the lungs must be discriminated from Chronic bronchitis, Cancer of the lungs, dilatation of the bronchi, pleuritic effusion, and pulmonary abscess.

Prognosis. The diathesis or the predisposition may remain latent for a long time, in fact often throughout life, and then again show itself.

in the next generation. It is one of the most destructive of diseases. A favorable prognosis can never be given though patients do sometimes recover. From post mortems it has been ascertained that the number who recovered is much greater than was formerly supposed. It is not uncommon to find lungs with cacatrices pointing unmistakably to the ravages of tuberculosis.

Treatment. Hygienic management is decidedly more important to the tubercular than medicine. The following precepts are laid down by Dr. B.W. Richardson.

1 A supply of pure and fresh air

or respiration is constantly required by tuberculous patients

2 Daily exercise in the open air is imperatively demanded by the tuberculous patient.

3. It is important to secure for the patient a uniform, sheltered, temperate, and mild climate to live in, with a temperature about 60°, and a range of not more than 10° or 15°; where also the soil is dry, and the drinking water pure but not hard.

4. The dress of the tuberculous patient ought to be of such a kind as to equalize and retain the temperature of the body.

5. The hours of rest should extend

from sunset to sunrise.

6. Indoor, or sedentary, occupation must be suspended; but outdoor employment in the fresh air has been and may be advantageous.

7. Cleanliness of the body is a special point to be attended to in the hygienic treatment of tuberculosis.

8. Marriage of consumptive females for the sake of arresting the disease by pregnancy, is morally wrong & physically mischievous.

The medicine employed is varied. Some of the most important agents are: Codliver oil, alcohol, iron, quinine, &c. For the night sweats oxide of zinc, belladonna.

Alcohol.

Thesis
by
James W. W. Bolton, D.D.,
of West Virginia.

Alcohol.

Alcohol is a liquid of transparent appearance. To the taste it is hot and peculiar. Its boiling point is 175°. It has not been frozen by any degree of cold hitherto produced. In the juices of various fruits are to be found the necessary elements for the vinous fermentation, which will take place at a temperature of from 60° to 90°. If the vinous fermentation be produced in a solution of grape sugar, alcohol and carbonic acid will be the result, in connection with the water. The alcohol can then be separated by repeated distillation.

It has a great affinity for water, of which it is not readily deprived. When free from water it is called absolute alcohol. Three strengths of A. are official, and are known as alcohol fortius, alcohol, and alcohol dilutum. Being a powerful solvent and preservative, it is extensively used in pharmacy. It is the intoxicating principle or element in wine, brandy, and whiskey. There is a small per-centage of alcohol in the malt liquors. With these facts premised, I proceed to briefly consider the medicinal use of alcohol. It is the most potent diffusible stimulant of the

command of the physician.
Alcohol, as such, is never administered, but is given in the form of some of the wines or liquors.
When applied externally for a considerable time, without being permitted to evaporate, superficial inflammation is excited. In dilute form it is a serviceable evaporating lotion for bruises. Alcohol will restrain the oozing of blood from surfaces, and has an antiseptic action when applied to suppurating wounds. When taken in small doses its effect on the nervous system is marked. It increases the action of the heart

and cutaneous circulation. The temperature rises slightly and the functions are performed with greater energy. It is a good local stimulant to the stomach in certain forms of dyspepsia. In some cases the malt liquors are to be preferred, on account of their tonic effect. When stimulation is required, wine, brandy or whiskey may be given. In case of prostration from diarrhea, port wine is best, because of the tannic acid it contains. Alcoholic stimulation is often necessary in typhoid fever, and in prostration from many other causes.

If alcohol does not act as a food, it at least sustains the flagging powers of nature until the system can so rally as to assimilate food. It is indicated in chronic wasting diseases, and especially in phthisis. It has great power to arrest waste of the body, promote digestion, and favor the deposition of fat. In case of poisoning from the bite of a venomous snake, alcoholic stimulants will counteract the depressing influence of the poison on the heart. When alcohol is given in acute diseases it should be well diluted, and withheld as

soon as the necessity for its administration has passed away. Then some appropriate tonic may take its place in the treatment. It is sometimes beneficial to the aged and infirm, in the form of wine. By high authority it was said: "Give strong drink unto him that is ready to perish, and wine unto those that be of heavy hearts. Let him drink, and forget his poverty, and remember his misery no more." "Wine that maketh glad the heart of man", was regarded by the pious of ancient times as a choice and important article of life, and also a

blessing bestowed by a beneficent Providence. St. Paul's direction to Timothy was: "Drink no longer water, but use a little wine for thy stomach's sake, and thine often infirmities". It is possible that the bishop was a dyspeptic. It may be that the apostolic advice was the result of a consultation with "Luke, the beloved physician". It will not, I presume, be amiss to glance at the abuse of alcohol. When it is taken in unmedicinal or poisonous quantities, or its unnecessary use continued for a long time, what has been properly termed "alcoholism" is produced.

The poisoning may be acute or chronic. When a toxic dose is taken the excitement of the heart and nerves is soon succeeded by loss of muscular action, feeble circulation, stertorous breathing, and insensibility. An acute case of poisoning may result in death. The signs or symptoms attendant on acute alcoholism, opium narcosis, intra cranial hemorrhage, and concussion of the brain, are so nearly identical that it is very difficult to make differential diagnosis. Without obtaining the history, in a given case,

it may be quite impossible to reach a correct conclusion. The surrounding circumstances should be examined, with care, and a hasty formation and expression of opinion should be avoided by the attending physician. In case of acute poisoning by alcohol, the stomach-pump should be employed, ammoniacal gas inhaled, a current of electricity applied to the muscles of respiration, cold water poured on the head, and the body warmed by the application of heat. Among the many injurious effects of the continued and excessive use of alcoholic

stimulants, are diseased conditions of the nerves, liver, stomach and brain. Evils physical, mental moral, and social, result from intemperance. The devastating effects of the unnecessary, inordinate, and injurious use of alcoholic stimulants, are apparent to the most casual observer. The ruin may be seen on every hand throughout the extent of this and other Countries. In the great city, the town, the village and in the less populous regions of this great country, spreads the baleful influence. The rich, the poor, the learned, and the unlearned,

fall alike before the mighty destroyer. In the onward march of intemperance, many in all ranks of society are smitten. At the touch of the demon the aged tumble, the strong fall prostrate, youth is corrupted, beauty fades, wealth is squandered, honors are dishonored, health is destroyed, happiness is blighted, and untold miseries, like a flood-tide, flow in. Amid the ranks of those cursed by the deeds of others, may be seen parents, whose fondest hopes have been dashed in ruins to the ground by wayward sons;

wives, whose peace and joy have been destroyed by husbands brutalized by strong drink; widows, in the habiliments of mourning, lamenting the untimely death of once kind and loving husbands who have gone down to drunkards' graves; and hapless orphans, whose rags and tears and cries for bread and home, bespeak the poverty and wretchedness entailed upon them by the inebriation of their once fond fathers.

I will be pardoned for quoting the following words of wisdom written by Solomon,

King of Israel: "Wine is a mocker, strong drink is raging: and whosoever is deceived thereby is not wise. Who hath woe? who hath sorrow? who hath contentions? who hath babbling? who hath wounds without cause? who hath redness of eyes? They that tarry long at the wine; they that go to seek mixed wine. At the last it biteth like a serpent, and stingeth like an adder." The appalling outline drawn by the royal hand

nearly three thousand years ago, is filled up by the drunkard of to-day. To realize more fully what the abuse of alcohol has effected, it is only necessary to turn and look into prisons and see the felons whose deeds of crime have made them inmates of gloomy cells; and to visit hospitals and asylums and there behold the wreck of body and of mind. While viewing the scenes of degradation, wretchedness, and suffering that alcoholic intemperance produces, the philanthropic physician could humbly wish that alcohol were blotted from

existence. However, it is an incumbent duty to discriminate between the use and the abuse of a valuable article of the Materia Medica. The abuse of any beneficial thing is certainly not a conclusive reason why it should not be properly used. If it were true that abuse would constitute a conclusive argument against use, then some other potent articles should be stricken from the list of medicines. Opium, arsenic, chloral, and other very valuable medicines, have often produced fearful results, when improperly used. It is a fact that is well known that the physician sustains an important relation

to his patients. It is his duty in time of suffering and danger to do the very best that can be done for those who entrust their lives and health to his care. The fact that many have greatly injured themselves by the improper use of alcohol is, in my candid opinion, no valid reason why it should be withheld when the occasion demands its use. Its value as a medicine but few will deny. It is a fact, not to be lost sight of, that it should be very prudently used, and not administered unless really

necessary. When some other remedy will as well answer the purpose, that should be given in its stead. It behooves the physician to use great caution in directing the use of alcoholic stimulants. There are many who would be greatly endangered by their use. In some there seems to be a natural desire for such drinks, and the spark might be easily kindled into a flame. The desire for stimulants, if gratified might soon lead to intemperance. There are reformed drunkards who might be endangered by taking even a small dose of wine,

for thereby might be evoked the force of former habit. There is less danger of creating a desire for alcohol when used in acute diseases, than when used in chronic diseases. Some persons to cure certain wasting diseases have used spirituous liquors, become drunkards, and died of delirium tremens. The evils from which they died were far less than those which they incurred. There is, after all, greater danger to society from the extensive use of so called "patent medicines" containing alcohol, than there is from the proper use of alcoholic stimulants administered under the watchful care of skillful and

prudent physicians. When an article of medicine can be found, that will fully take the place of alcohol in the treatment of diseases, and not be susceptible of its abuse, then let alcohol cease to be used. The one who may discover such a remedy, will bestow a real favor on the medical profession, and a great blessing on mankind at large. The great difficulty in obtaining alcoholic liquors free from the poisonous drugs of adulteration increases the danger of their use. The well meant endeavors of the physician in the treatment of the sick are often worse than defeated

by the fraudulent avarice of the manufacturer or vender of ardent spirits. The medicinal use of alcoholic stimulants should at all times be regulated by prudence and the dictates of enlightened judgment. The physician, in his high and important profession, can greatly promote the sobriety and morality of community by exercising due care in the administration of alcoholic stimulants. Much more might be said concerning alcohol, its medicinal use, and its abuse. In conclusion I will say, let alcohol be a servant, but not a king.

Some Points on Diagnosis of Disease in the Bladder and its Appendages.

—— " ——

W. H. Noble.

Jan. 25, 1843.

Some Points on Diagnosis of Disease in the Bladder and its Appendages.

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Disease in the Urinary apparatus is of such frequent occurrence and the attendant consequences often of such grave import that prompt recognition of its nature becomes important in the highest degree. Nowhere in the wide range of therapeutics

is it more true that diagnosis is more than one half of the battle than here, for the principles of treatment are so simple and well understood that it is an easy matter.

Almost every disease to which these organs are subject, manifests itself by irritability of the bladder, and it is for this, here, that the patient most often seeks advice.

Vesical irritability may be the indication of some trivial disorder or it may be

be the manifestation of [illegible]
organic disease; a slight
irritation of the glans penis
may cause it & it may
be due to serious cerebral
or Spinal disease. Prostatic
urethral or kidney disease
may be its exciting cause.
Since it is a symptom
& not such wide causation
by which alone we cannot
locate a lesion, it behooves
the doctor to treat it as its
origin and not make the
mistake of treating a symp-
tom which he can never
cure, while its exciting cause

remains.

Age and sex have much to do in estimating its importance. In children it is most often caused by phimosis, or some such slight irritant to the penis, such as the retained secretion of Tyson's glands, to worms or possibly to a calculus in the bladder, when the symptoms attendant on stone will clear up the diagnosis. But in the adult it is by no means so insignificant since it is so often associated with conditions of the gravest import. In

women it is a symptom of uterine displacement. Pain is not less constant and is a symptom of the utmost value; by it alone the hostile site of disease can frequently be located. The pain in cystitis is greatest immediately before micturition and is gradually increased in intensity as bladder is rendered more tense by the accumulation of urine in it. The diagnosis is rendered doubly sure if the pain is not present when the urine has been bac-

nated. But we have another resource in pus and mucus which are invariably present here. Thus the diagnosis is made and the treatment to be pursued is made sure. Stone or enlarged prostate may cause cystitis; but in such event the pain would not be relieved by evacuation, indeed it might be increased by the inflamed bladder walls contracting, firmly on this hard rugged mass. Here however we may have two exciting causes and to decide which

of them, is now the problem. For this purpose the sound is brought into requisition. If stone be present the introduction into the bladder will elicit a distinct grating sound. If no such sound is heard and the patient is old there is good reason to conclude that the prostate gland is enlarged.

Gonorrhoea or stricture often produces acute pain, but it is present only during the act of micturition, which, the sound

and the facility with which the urine is voided will decide the frequency with which the urine is passed and the amount voided, the facility with which it is voided, whether it be slow and difficult or intermittent & if there be inability to empty the bladder or the patient is unable to retain urine, each suggest their respective causes. Cystitis causes the frequent evacuation of small quantities of urine, and the frequent passage of large quantities

can only be referred to diabetes.
Stricture is often the cause
of frequent micturition,
but it is effected with great
pain and the process is
slow and difficult, the
urine dribbling away
drop by drop when the stric-
ture is very tight.
Enlarged prostate and stone
each obstruct the flow of
urine, But while in en-
larged prostate the stream
is slow, it is steady and
uninterrupted in stone the
flow is slow and very
intermittent often bloody

incontinence and retention of urine are due to nervous influences, it may be in the bladder itself or it referable to the brain or Spinal cord it becomes a Symptom of the utmost gravity and often heralds the approach of death, indeed not. Tiffany has not seen a case of injury to the brain or cord recover when these symptoms were present.
Hemorrhage may be from the Urethra, bladder

der or kidneys. If it is noticable only in the first urine passed or precedes the passage the urine is found & the matter and as such is of slight importance. But if the whole of the urine be tinged bright blood or it continues to flow from the bladder we must seek its source either in the bladder or kidneys In order to do this, determine which of these organs is at fault, by cleaning

the bladder thoroughly by means of a catheter and warm water. If it be from the bladder the water which finally trickles away will be clear, but if it is from the kidneys or ureters if the catheter be allowed to remain in situ, blood will soon trickle down leaving no doubt as to its source.

When we consider that only an inflamed ureter or bladder is likely to bleed it tells us almost

by itself what is the matter, and in connection with pus, which makes its appearance in the same manner that blood does it leaves no doubt that we have a suppurative condition of the bladder or urethra to treat.

Having thus briefly spoken in general terms of the more prominent symptoms which are likely to present themselves in the more frequent diseases of these organs it only

remains for me to sum up these respective values and to classify them. Irritability of the bladder is present no matter where we turn, but it is not referable to any one site. Pain before micturition especially if it increases as the bladder is filled is caused by some inflamed condition of the bladder itself; after micturition to some contracted body on which the bladder is contracting; pain after micturition to the urethra.

Hematuria is when there
is the urethra bladder
or kidneys, as the blood
precedes micturition or
is present only in the first
urine passed, is seen in
the whole urine passed
or continues after the act
of micturition has ceased
and the bladder cleansed
Difficulty in the passage
of urine is when there
the urethra or somebody
in the bladder which obstructs
the flow as the flow is re-
tarded and painful or
intermittent.

Incontinence or retention of urine & nervous disorders.

Pus in the urethra, bladder or kidneys as it succedes the urine or is contained in the whole amount

Irritability of the bladder pus and blood in the urine before micturition is & cystitis or some substance in the bladder which is akin to it.

Irritability of the bladder, pain after micturition, pus and blood in the urine & Stone or prostatic disease

with cystitis, with pus & blood or prostatic disease simply.
Irritability of the bladder pain during micturition pus or blood preceding the urine or contained only in the first is referable to the urethra.
Irritability of the bladder in women is generally caused by uterine displacement.
Having gained all we can of the foregoing symptoms, we can scarcely ask as to the site of the lesion, if we

correctly collate them.
Should our investigations lead us to conclude that
Stone Stricture or enlarged prostate is the disease
the Sound and rectal examination, in women
Vaginal examination, can
hardly fail to tell all we
wish to know, and make
sure for us the path to
be pursued in treatment.

W. H. Wales

Clinical notes of a case of
Croupous or Lobar Pneumonia

6. Called to see Mr. D—. robust man,
Has been complaining for two or
three weeks, but not confined
to house. Had a severe chill
followed by fever yesterday. Com-
plaining to day of pain in head,
back and limbs. high fever
face flushed and eyes congested,
breathing hurried, dry cough.
Tongue coated, bowels costive,
pulse quick, hard and full
Dullness over lower lobe of left
lung. Crepitant rale. Breath
sounds normal. Diagnosis.
Lobar Pneumonia. Quinia gr xxx Treat
Morphia grss to be taken at once

applied cups over seat of dullness
and mustard plasters. Tr. Aconite R.
gtt ij every two hours and ordered
Sulp. magnesia ℥j to be given
7. Under the influence of the an-
odyne pains not so severe. de-
lirious. picking at the bed clothes.
Skin. hot and dry. Temp℔ 103°
pulse full and hard 97. per
minute. breathing hurried, face
flushed, dullness more marked
continued treatment.
applied Stupes turpentine to
chest. and administered Dovers
powder gr x
8. Very restless during the night
temp℔ 101° pulse 90. per. Min.
breating hurried, cough loose

and expectorating characteristic
rusty sputa. marked dullness
upon percussion, increased vo-
cal fremitus. crepitant rale
has disappeared, bronchophony
and bronchial breathing can
be perceived.
9. Skin hot and dry. pulse 90.
Temp 102. breathing hurried,
Cough, expectoration and phys-
ical signs unaltered
Carbonate of Ammonia gr x Treat.
every three hours. Dovers powder
gr v every three hour. Tr. Aconite
gtt ij every two hours. and
Quinia gr xxx at once
10 Sent for during the night
found him very restless delirious

picking at bed clothes. pulse
rapid and weak Tempt 104°
eyes congested, breathing hurried,
Bromide Potassium gr xxx Treat.
Chloral gr x at once. Quinine
gr xx every four hour. brandy
tablespoonful every four hours
31. Patient better. quite cheerful skin
moist and fever abating. pulse
80. Subcrepitant rale can be
heard coughing up. thick
tenacious sputa
1. Fever abated, pulse 70. slept
well during the night, appetite
improving
2. Still improving coughing up
sputa without difficulty
bowels acted normally. dullness

clearing up, voice and breath
sounds decreasing in intensity.
4. Found patient walking out,
considers my attention no longer
neccessary. lung clearing up
breath sound more vesicular.
his recovery was uninterupted

B. W. Downey

Case of Compound Fracture
of Tibia and Fibula
14. Called to see Mr. D. S. age twenty
four years. Both bones of right
leg fractured about three inches
above ankle end of fibula
projecting through the skin
line of fractures transverse
cause direct violence. By
extension and manipulation
of the bones succeeded in
bringing them into proper
relation and immediately
put into splint using for
the purpose stout strips of
harness leather about two
and a half inches wide
and extending from knee

to toes, first soaking the leather in hot water so that it could be moulded to leg. applied them laterally leaving the wound exposed with simple adhesive plaster over it applied the splints over raw cotton and administered Morphia gr 1/4

5. Patient rested well last night but complaining of limb this morning which is hot swollen and tense

Removed splint the man during the night having forcibly thrown the leg from one side of bed to other, reproduced

the deformity. Pus flowing from wound. Used carbolized dressing To wound having enlarged it to give free exit to pus Reset the leg using for splints two sand bags one to each side of leg and extending from above the knee to the toes well padded with cotton Thus splint adapted itself to the limb securing complete immobility of bones and weight effectually preventing patient from moving limb. Kept the patient in this splint for three weeks. using carbolized dressing to wound

which healed up very kindly
& then encased the limb in
plaster paris including knee
and toes and upon setting
of plaster allowed patient to
get up and hobble around
his room with crutches.
His recovery was uninterupted
from this time and a good
cure was the result.
& allowed plaster to remain
upon limb eight weeks.
General treatment of this
case consisted entirely in
keeping bowels open. good
food and anodynes when
ever needed

B. L. Dewey

Clinical notes of a case of
Locomotor Ataxia. Typhoid
fever. Pneumonia, and Compou
Fracture of Tibia and Fibula
Presented to Faculty of Univer
Maryland
With respects of
B. W. Downey.

Notes of a case that I considered Locomotor Ataxia or Tabes Dorsalis.

G. J. Aged seventy-eight years, farmer, has enjoyed good health heretofore with the exception of a period about fifteen years ago when he suffered intensely with pains of a neuralgic character darting through his hips and down his thighs lasting him three days and leaving no trouble behind as far as the senses could discern. Could obtain no history of hereditary or acquired syphilis. Uses brandy habitually but never

excessively, he has been complain-
ing for two months back with
sharp pains darting through
his hips and down thighs.
Pains come upon him about
three o'clock in the afternoon
and continue throughout the
night when they abate giving
him comparative ease and
during intermission hobbles
about with crutches. Upon
his attempting to walk no-
ticed some irregularity of
movement in lower extrem-
ities and very precise in
planting his feet. Called my
attention to the erection of
the penis which seem to trouble

Patellae reflex action completely abolished. Complains of constricting band around stomach. No tenderness along spinal column, one or two tender spots along the course of sciatic nerve no fever. Appetite impaired. Pulse normal. Used morphia hypodermically to relieve pain. Flying blisters along the course of sciatic nerve. Turpentine ten drops three times a day in conjunction with five grs. Quinine every three hours.

15 Pains less frequent and severe

diminished. Walking better without using cane. general health improved.

Tonic, Iron and Quinine

3. The fulgurant pains have ceased with increased vigor. Suffers intensely in his efforts to pass urine. Had to use catheter.

Pulse intermitting. Slight oedema over ankles. Tested Urine for albumen could detect none, urine filled with mucus.

Bowels Costive.

Morphine Hypodermically for the pains. Ordered an infusion of buchu leaves for condition of bladder and Dilatation [illegible]

ten drops three times a day to [illegible] and ordered an
enema to open bowels. and
put him upon 30 drops of potas-
sium [illegible] three times a day.
Has been doing very well since last
date. Pains have abated, only
complaining of a slight [illegible]
[illegible] and these [illegible] has cleared
up and passed without any
difficulty. Treatment continued.
Sent for, [illegible] delirious,
[illegible] upon [illegible]
[illegible]
face [illegible]
[illegible]

Blister to nape of neck ordered

to wrists and ankles. Teaspoon-
ful of Brandy every hour
15 Mind has cleared up and some
what better though gloomy and
indifferent
17 Mr. J Decidedly worse delirious
Pulse ninety per minute inter-
mitting, eyes congested face
purplish here constant twitching
of the muscles of arms. Passed
urine and faeces in bed.
Mustard Sinapism and Stimulation
Still delirious urine twitching
violently pulse weak.
Ordered 15 grs Bromide of Potas-
sium every three hours in con-
junction with stimulation

applied dry cups to [illegible]
No spasmodic action of muscles
Consciousness returned very
indifferent marked hyperaesthesia of lower extremities can
not bear the slightest touch
can move the limbs readily
in various directions no deviation of tongue from median
line. Urine dribbling from
bladder.
Put him upon [illegible] of Strychnine [illegible]
three times a day also used
ext belladona [illegible] three times
a day. Upon this treatment
his condition seem to improve
considerably

6 condition much more unfavor-
able. Delerious. eyes congested
face dark purplish hue, pulse
feeble, arm twitching violently.
Passed urine in bed. remained
in this condition for two days
Same as in former condition
of this kind
8. Conscious, has some spasmod-
ic jerking of entire body.
Bromide of Pot Belladona and
Strychnia counter irritation to the
29 perkins of body has ceased. Pain
have not returned. Suffers ex-
ceedingly in passing urine
called upon to pass it every
ten to fifteen minutes. Urine

filled with mucus becomes
foetid upon standing very
restless at night can not
lay upon one side longer than
ten to fifteen minutes. Atrophy
of muscle of calf. In performing
any delicate movement stand
writing markedly at once shows
the incoordination in failing
to place the finger upon nose
with eyes closed. Tongue very
red and fissured.
Hypostatic pneumonia has
developed, expectorating a thick
tenacious sputa. Dullness
over lower lobe of left lung
vocal fremitus.

Stimulant Tablespoonful of
brandy three times a day
grs v Carbonate of Amm every
four hours. Balsam Copaib.
Twenty drops three times a day
Has had no return of fulgurant
pains Cough worries him
exceedingly. Urine filled with
mucus and foetid
Washed out Bladder with tepid
carbolized water and continued
expectorant
Pains have returned upon
him with all their former
severity. Liquor Morphia Sulp
b o re nata
Pains continue only re-

lieved by [illegible] Strangury. Urine filled with mucus. Expectorating thick tenacious fluid. Dulness over left lung. Vocal fremitus and subcrepitant rales. Mind rapidly failing.

Taken up the idea that his mouth is filled with gum boils.

1. Pains have abated. Cough worrying him. Nausea and vomiting due to the gaging of the tough fluid expectorated. Stimulants

2. Decidedly worse breathing hurried and oppressed pulse rapid irregular

intermitting, coughing and with great difficulty expectorating.

3. Death occured quietly about 10. A.M.

Note. In treating this case I tried various remedies not noted in this report as Electricity and Ergot with no beneficial influence as far as I could determine. My treatment being almost entirely expectant in latter stages.

B. D. Downey.

Clinical report of a case of Typhoid Fever occurring in a young girl age 23 years.

5. Patient has been complaining some time past of pain in head back and limbs, appetite impaired. feeling so bad did not get up this morning. tongue covered with whiteish fur. nausea. Complaining of severe pain in head. bowels moved three times during the night.

Ordered Calomel gr vj. Quinine grs. j. to be taken three times a day. Treat

6. Condition unimproved. complains of head. considerable fever. pulse 90. per minute. has

had four stools since 10. A. M
yesterday. Drowsy and mind
wanders. Pain upon pressure
in right inguinal region
Quinine gr x three times a
day. Dil Muriatic acid gtt xv
three times a day.
10. Complaining of no pain.
Delerious tossing upon bed,
picking at bed clothes. bowels
moving seven to eight times
a day. Tympanitis gurgling
in right iliac region. Hau-
sea and vomiting. Lime water
and milk. Table-spoon of
lime water to three of milk
every four hours. Tr Opii gtt x

Treat

Treat

three times a day. continued
the acid. Teaspoonful of
Brandy every three hours.
Turpentine Stupes to abdomen
16. Gurgling and pain in right
illiac region. Tongue, dark
brownish coating over il-
sordes around gums. Rose
colored spots over the sur-
face of abdomen. Low
muttering delerium with
subsultus tendinum.
Tympanitis. Temp: 103. pulse
95. weak. Three stools during day
ochre colored. and watery. Treat-
Rice water and milk with
chicken soup. Turpentine gtt x

three times a day. Quinine gr XX every four hours. Bromide of Potassium gr XX at night to give sleep. Teaspoonful of brandy every two hours

24. Tongue dry. hard and fissured. Delerium continues Tempt. 103. pulse 105. Complaining of sharp pain in side can not draw in a deep breath without intense pain No dullness upon percussing Hypodermic injection Morphiae Treat gr 1/6. Mustard sinapism over pain. Ordered Egg-nogg table spoonful every three hours Subnitrate of Bismuth. gr X

every four hours. Continued
turpentine. Quinine gr xxx every four hours
28. Pain in side has abated
complaining of severe pain
in right leg which is hot
swollen and tense.
Pulse feeble temperature 103.
skin dry and covered with
ecchymotic spots. Tongue
dry hard. fissured and
pointed. Quinine gro xxx every
four hours to subdue fever
Bromide Potass. gr xxx to give
rest. Subnitrate Bismuth
continued. Turpentine gtt x
three times a day. elevated
leg and use anodyne lin-

aments to sore leg.

30. Two abscess have appeared upon abdomen. patients condition unimproved complaining exceedingly of leg which is hot and shining. Has not been able to pass water for the past twelve hours.
Drew off urine with catheter Treat- lanced abscesses. Continued treatment.

4. Conscious. complaining of leg which is hot swollen and pore like cakes have appeared over the course of the femoral vein.

Treat.

continued brandy and used
belladona liniment to leg.
8. Morphia to controll pain
condition more favorable
tongue cleaning off and
fever abating. complaining
less of limb. bowels slightly
costive. regaining strength,
more inclined to eat.
This patients convalescence
was uninterupted and con-
tinuous. probably aided
by Sr. Chl. Ferri gtt x with
Quinine gr ij three times a
day. She had not however
recovered the entire use-
fulness of her right leg

when last seen by me.

Note. The diet of this patient during her illness consisted of Milk. Chicken soups. beef tea alternating day after day.

B. D Downey
Stockton
Henry Co
Va.

the Congenital and Hereditary
Transmissions of Diseases and
Pathological peculiarities.

It is designed in this paper
to show not only by analogy, but
by a collection of facts, that ac-
cidental defects and diseases,
as well as natural peculiarities
and marks, may be transmitted
congenitally; that where such de-
fects depend on established hab-
its, or long and continued prac-
tices, from one generation to another,
the offspring are influenced by such
habits, both in formation of body
& quality of mind.

than our sympathies for its toils & fatigues.

The force of habit, or rather the congenital transmission of physical changes in the offspring, by a custom practiced for years or a long time upon the progenitor, is a thing not only incredible to the casual observer, but strange and inexplicable to the most thoughtful & observing; we are, however, forced to submit to positive & well authenticated facts, notwithstanding we may be at fault in theory, & wholly

in support of my proposition. There is one kind of dog more used than any other for the extermination of rats & mice in dwellings, barns Stone-houses &c. It was thought - by some, that their ears & tails were in the way, consequently the one was cut off to within from one to two inches of the body, while the ears were shortened or trimmed in a manner known to Sportsmen as docking. Very soon this was largely practiced on nearly all the dogs of this species, or more properly speaking this breed, until their young were born with

general qualifications of this creature are of a high order, and peculiarly susceptible of cultivation by art. The senses of smell are remarkably acute, and the clearness of perception, excellence of memory, patient endurance and gentleness, are not excelled in any other of the lower animals; while it may be said of the dog, that he is more faithful than even the most boasted among men. He is more constant in his affections, friendly without interest, & grateful to the slightest favors. Much more

they correspond to the condition of the Mother's teeth during the respective periods of conception, gestation & lactation.

A precisely similar condition is found in children born of parents, one of whom may be of sound & robust constitution, while the other is hastening to the grave, borne down by the ravages of Pulmonary Consumption. One child, for instance, may so closely resemble the healthy parent, as to be readily recognized, by the School boy's acquaintance, as the child of the healthy father or mother, as the case may

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Laceration of the Cervix Uteri -

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Laceration of the Cervix Uteri

Laceration of the cervix consists in the tearing of its walls, occurring during parturition, & may extend partially, or entirely through its parenchyma.

Lacerations are partial or complete; or again, either unilateral, bilateral, or stellate. Lesser degrees of laceration are called fissures, & those attended by eversion of the cervical mucous membrane as ectro-

median line & of the posterior lip are the most common; when unilateral, that of the left side. In bilateral & stellate, the mucous membrane becomes everted & inflamed; the submucous tissue hardened & thickened, & the entire cervix hypertrophied.

Frequency:- 1/- is claimed, & probably with good ground, that 32.8% of all women who have borne children are endowed with a lacerated cervix. In Emmet-s-

lines, that at least one half of the Uterine troubles attending parturient women are due to laceration. Dr Goodell, that one out of every six women suffering from Uterine disease, possesses an unsuitable cervix. When we reflect how often this lesion stares him in the face, & in the evils attending it, we can not well be pardoned if he do not seek eagerly to acquaint himself with its recognition, management & cure. True, every laceration does

not require operative measures & yet there are many cases, which in view of the pathological results, absolutely demand it. Many lacerations undergo spontaneous cure if the patient be kept quiet & the parts clean; while others cause one or more of the many evils we shall presently enumerate. Causes & means of prevention.—

Accidentally laceration can often be prevented by judicious care & the em-

ployment of those means which are at our command. Among the most frequent causes of laceration are:-

1st Precipitate labors. This may never cause laceration, the violence of the pain, the great + constant distension to which the cervix is submitted + the rents about the os, should warn us of what may occur & lead us to the use of chloroform; in order to check the violence of the labor & prevent its injurious

results.
2nd Tedious labors. more apt to occur after than before rupture of the membranes. What is to be done in these cases? If the retardation be due to inertia, the os being soft & oedematous, the pains weak & ineffectual, the great remedy is quinine & in large doses. Fifteen grains after its use, the pains will usually increase & labor be readily terminated. If, however, quinine should fail, the forceps

should be applied; remembering to be in the use of these instruments, as careful of the cervix as of the perineum - Where the pains are irregular, spasmodic & excessively painful, without producing any real effect & the os is hard & tense, chloral is especially valuable - Should be given in fifteen grain doses every twenty minutes until four doses have been taken, when usually the labor will be speedily terminated & without evil results.

3rd From head last passage. Laceration from this may often be avoided by firm pressure from above.
4th From forcible dilitation of the os, to hasten retarded labor. The cervix dilates slowly & to precipitate manipulation is of course harmful.
5th Another cause is an abnormal position of the cervix & os, due to a pendulous abdomen, posterior laceration being a consequence.
6th Improper use of Ergot. This should never occur.

If ergot be given at all, it should not be used before the head is well down, pressing on the perineum.

7th Rigidity of the os. Cancer of the cervix. Cicatricial tissue & abortions especially, according to Dr Emmet, Criminal abortion are frequent causes.

Though laceration is often unavoidable, we have seen that at least in some instances, by proper care & good judgement, it can be prevented.

Symptoms:-

Usually increased menstruation. Leucorrhoea. Pain in lumbar & iliac region. Neuralgic pains in cervix. Discomfort in locomotion & usually sterility.

Diagnosis:-

By digital touch & Speculum. The speculum being introduced, a tenaculum is inserted into each lip. The divided walls being drawn together the normal shape of this part will be recognized & the laceration easily diagnosed

Prognosis:-

If the laceration be of the anterior or posterior lip it will probably heal if kept clean & the patient at rest. Cure is however hastened by such applications as tannin, zinc, alum &c - frequently & especially if the laceration be complete & bilateral, or attended with one or more of the following conditions will follow Chronic peri-uterine cellulitis. Cancer - Of which laceration is the most frequent

of all known causes - Sub-involution - Menstrual disorders - Endometritis - Granular & cystic degeneration - Neuroses & Uterine displacements -

Certainly we can question the advisability of Trachelorrhaphy in those lacerations attended by local engorgements & irritation, especially if we bear in mind that the lesion is the source of so many evils & that the operation is one of comparatively little danger -

Treatment: -

This is palliative and curative. Palliative treatment is called for in those cases in which from any cause the operation by trachelorrhaphy is deemed inadvisable. It consists in the use of copious injections of warm water (better to add a little common salt) & the use of alteratives such as iodine, glycerole of tannin &c. Cervical cysts should be evacuated by puncture. A pessary should be introduced to remove all incumbent weight & support. The ute-

rus.
Curative treatment consists in the operation of tracheotomy. When cases present themselves with pelvic inflammation you should never operate until all inflammation has been subdued. The operator should bear in mind the fact of the pelvic organs & never operate when there are in a condition contraindicating it.
Operation being decided upon, hot water should be injected for some time be-

fore proceeding, as it has a tendency to lessen hemorrhage. The woman being anaesthetized is placed in Sims' position & his speculum introduced. A tenaculum is fastened in each lip & the torn surfaces brought together: by this means the operator decides to what extent denudation is to take place. Reaching this conclusion, he seizes firmly the lower side of one flap & by means of curved scissors denudes the mucous membrane; also cutting away a small por-

tion of the parenchyma as far as the junction of the two flaps. The other flap is treated in the same way & a like process is gone through on the other side. The raw surfaces are now brought together, leaving a strip of undenuded tissue corresponding with the cervical canal. Sutures are passed by means of small needles & fine threads. Sutures should be placed from above downward about a third of an inch apart. After all are placed each

should be twisted & laid flat against the cervix. Often it so happens that the intervening tissue has become hyperplastic & it is impossible to bring the edges of the laceration together. In these cases it is necessary to cut away the intervening tissue where the edges can be easily approximated. The sutures should be allowed to remain from seven to ten days. The vagina should be syringed out twice a day with warm carbolized water. This is

a description of the operation of trachelorrhaphy in a bilateral laceration. When stellate, you make it a bilateral by cutting up to the vaginal junction on each side. The operation is sometimes followed by cellulitis, or peritonitis, these are however rare; complete cure being the usual result. Sometimes the cervical canal becomes too small, causing dysmenorrhoea in this case you treat as for stenosis.

Ralph Steiner